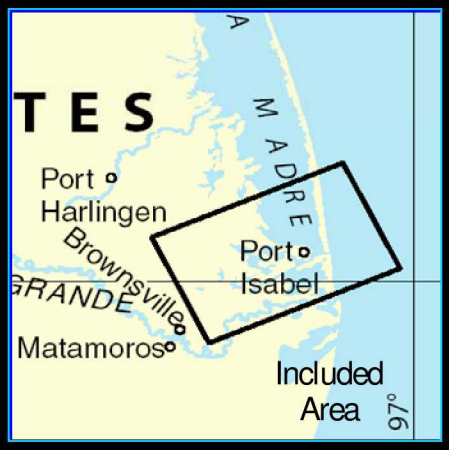
BookletChart™

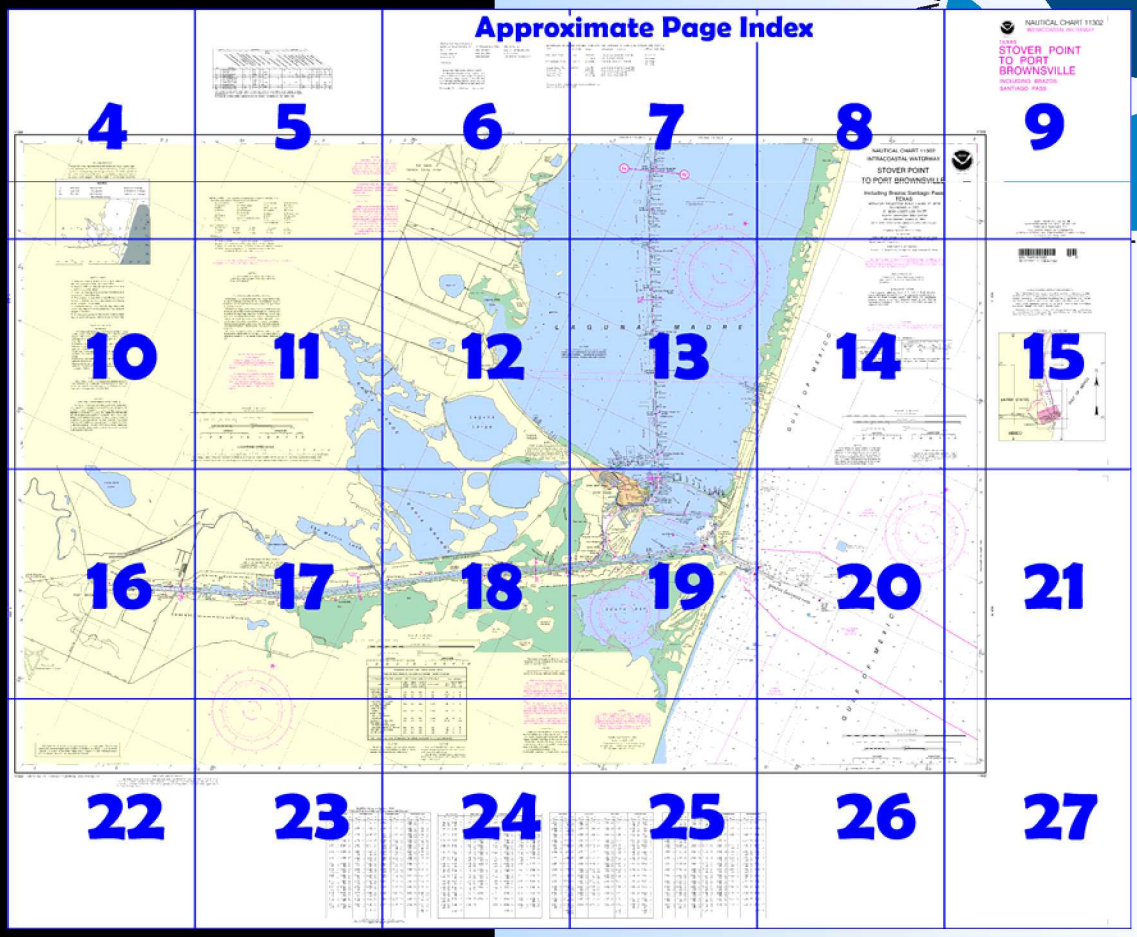
Stover Point to Port Brownsville

(NOAA Chart 11302)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*



Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

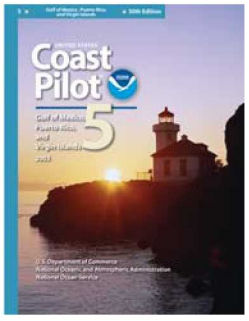
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 5, Chapter 11 excerpts]

(3) From San Luis Pass to the entrance to Matagorda Bay at Pass Cavallo, the coast trends for 80 miles in a general SW by W direction. From Pass Cavallo it curves gently SW for 100 miles to latitude 27°N., where the trend is S; thence it curves gently a little E of S for 58 miles to the mouth of the Rio Grande. Throughout its distance the coast encloses a chain of shallow lagoons, some of considerable size. These are separated from the Gulf by long, narrow islands and peninsulas which are generally low and sandy, with few natural distinguishing marks. Some of the bays and lagoons may be entered from the Gulf through dredged passes protected by jetties, and others through small passes partly obscured by bars with little depth on them.

(281) **Laguna Madre** is a shallow body of water extending S from Corpus Christi Bay for a distance of 100 miles. Depths range from zero to 9 feet with reefs and mudflats throughout. The Intracoastal Waterway traverses Laguna Madre from Corpus Christi Bay to Port Isabel, Tex..

Padre Island, a low, barren, storm-swept strip of sand beach, separates Laguna Madre from the Gulf. Most of the Island is part of the **Padre Island National Seashore** and subject to the rules and regulations of the U.S. Department of Interior's National Park Service.

(282) A natural fishing reef is 1.5 miles offshore about 15.6 miles N of Port Mansfield jetties. Another natural fishing reef is 4.5 miles offshore about 11.2 miles N of the jetties.

(298) **Brazos Santiago Pass,** the approach to Port Isabel and Port Brownsville, is a narrow pass from the Gulf to the lower end of Laguna Madre, between the S end of Padre Island and the N end of **Brazos Island.** It lies 236 miles SSW from Galveston entrance, 106 miles S from Aransas Pass, and 6 miles N from the mouth of the Rio Grande.

(299) Aapproaching Brazos Santiago Pass on a clear day, the radiobeacon antenna at **South Padre Island Coast Guard Station** and the water tank and Port Isabel Light are the first objects sighted. Soon thereafter the mariner will pickup Brazos Santiago Light and the Coast Guard station inside the entrance on the N side. The light on top of the radiobeacon antenna of the Coast Guard station is prominent at night. On clear nights it is reported to be visible 20 or more miles offshore. The large hotels and condominiums on Padre Island N of the entrance are prominent.

(300) **Port Isabel Light** (26°04'36"N., 97°12'24'W.), 91 feet above the water, is shown from the white conical brick tower; the light is maintained by the State.

(329) **Port Brownsville,** about 14.5 miles from the inner end of Brazos Santiago Pass, is the port for the city of Brownsville.

(330) **Brownsville,** about 5 miles WSW of Port Brownsville, is a fast growing metropolis and the largest city in the rich agricultural section on the N side of the lower Rio Grande Valley that extends 100 miles W from the river mouth. Noted as a resort city, it is also a gateway to Matamoros, Mexico, on the opposite side of the Rio Grande.

(358) **Port Isabel,** about 2.5 miles W from Brazos Santiago Pass, is an important point for the shipping of petroleum products by barge and the receipt of barge shipments of sand and gravel. It has a large shrimp boat fleet, and the town is widely patronized as a resort for sport fishing and recreation.

(360) A narrow dredged channel leads NW from the Intracoastal Waterway close SW of the pontoon bridge and leads around the N side of a small island marked at each end by a daybeacon. The channel connects with **Port Isabel Side Channel,** another dredged channel that extends W from the Intracoastal Waterway about 0.3 mile SW of the pontoon bridge and leads N to connect with side channels used principally by fishing vessels. In April 1999, the controlling depth was 10.0 feet in the channel around the island and in the Port Isabel Side Channel.

(361) The deep-draft Port Isabel Channel departs the Laguna Madre Channel about 2.8 miles above the jetties and leads N for 1.2 miles to the turning basin at Port Isabel. A Federal project provides 42 feet through Laguna Madre Channel and 36 feet through Port Isabel Channel and turning basin.

(362) A causeway crossing the Intracoastal Waterway between Port Isabel and Padre Island has a fixed span with a clearance of 73 feet. The fixed span of the former causeway crossing the S end of Laguna Madre between Long Island and Padre Island has been removed; a 38-foot navigation opening remains.

(371) The **Rio Grande** empties into the Gulf of Mexico 6 miles S of Brazos Santiago Pass. The International Boundary and Water Commission states that the river forms the International boundary between the United States and Mexico for 1,241 statute miles; further, that the total length of the boundary is 1,935 statute miles from the Gulf of Mexico to the Pacific Ocean. No survey of the river has been made recently, but access to the river over the entrance bar is limited to skiffs and small boats; inside, the channel is changeable. The International Boundary Commission has several dams on the Rio Grande to prevent freshwater from wasting into the Gulf.

Table of Selected Chart Notes

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection
Scale 1:40,000 at Lat 26°05'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

INTRACOASTAL WATERWAY

Project Depths

12 feet Carrabelle, FL to Brownsville, TX.

The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.

Distances

The Waterway is indicated by a magenta line. Mileage distances shown along the Waterway are in Statute Miles, based on zero at Harvey Lock, LA, and are indicated thus: ——•——

Tables for converting Statute Miles to International Nautical Miles are given in U.S. Coast Pilot 5.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

NOAA WEATHER RADIO BROADCASTS

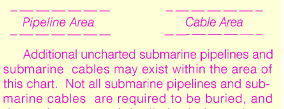
The National Weather Service station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Brownsville, TX	WWG-34	162.55 MHz

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

ACKNOWLEDGMENT

The National Ocean Service acknowledges the exceptional cooperation received from members of the Lower Rio Grande Valley Power Squadron, District 21, United States Power Squadrons for continually providing essential information for revising this chart.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 1.279" northward and 0.921" westward to agree with this chart.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Survey platforms, signs, pipes, piles, and stakes, some submerged, may exist along the maintained channels. Piles and platforms are not charted where they interfere with a light symbol.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

NOTE C

PORT ISABEL SMALL BOAT HARBOR

The controlling depth was 2 feet for a width of 75 feet from the Intracoastal Waterway to the harbor entrance at 26° 04' 40" N, 97° 13' 10" W, thence 2 feet for a width of 50 feet to the turning basin and 3 feet in the basin.

Apr 2007

CAUTION

Small craft operators are warned to beware of severe water turbulence caused by large vessels traversing narrow waterways.

PLANE COORDINATE GRID

(based on NAD 1927)

Texas State Grid, south zone, is indicated by dashed ticks at 10,000 foot intervals thus: -+-
The last three digits are omitted.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) ⌀(Approximate location)

Corrected through NM Jan. 12/08, LNM Jan. 01/08

Corrected through NM Jan. 12/08, LNM Jan. 01/08

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 8th Coast Guard District in New Orleans, LA, or at the Office of the District Engineer, Corps of Engineers in Galveston, TX. Refer to charted regulation section numbers.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

WARNINGS CONCERNING LARGE VESSELS

The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sailboats and sailboards may unexpectedly find themselves unable to maneuver. Bow and stern waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

SAFETY HINTS

1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
4. The compass on your chart shows the variation from true north, however you must also correct your bearing for the deviation of your boat.
5. Constantly use your chart from the beginning to the end of each trip. Keep in mind the orientation of your boat with respect to the chart.
6. Maintain your position on the chart by relating charted features with those you can identify in your surroundings.

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

Additional information can be obtained at nauticalcharts.noaa.gov.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 5 for important supplemental information.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadrons (USPS) and U.S. Coast Guard Auxiliary (USCGAUX), national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses, contact the following sources:

USPS - Local Squadron Commander or USPS Headquarters, 1504 Blue Ridge Road, Raleigh, NC 27607, 888-367-8777

USCGAUX - COMMANDER (OAX), Eighth Coast Guard District, Hale Boggs Federal Building, Suite 1126, 500 Poydras Street, New Orleans, LA 70130, 800-524-8835 or USCG Headquarters, Office of the Chief Director (G-OCX), 2100 Second Street, SW, Washington, DC 20593

FACILITIES

Locations of public marine facilities are shown by large magenta numbers with leaders and refer to the facility tabulation.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Port Isabel	(26°04'N/097°13'W)	1.4	1.3	0.2
Padre Island (south end)	(26°04'N/097°09'W)	1.5	1.4	0.2

NOTE: In Laguna Madre and adjacent bays the periodic tide has a mean range of less than one-half foot, except near the Gulf inlets. Water stages vary greatly with weather conditions.

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

(Jan 2008)

NO	SMALL CRAFT FACILITY	DEPTHS: CHART SIDE / APPROACH-FEET (REPORTED) / ALONGSIDE-FEET (REPORTED) / BERTH (The
22	SOUTHPOINT MARINA	

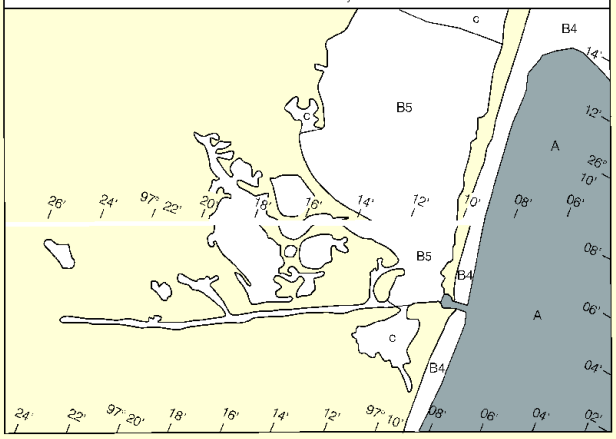
THE LOCATIONS OF THE ABOVE PU
THE TABULATED 'APPROACH-FEET (REPORT
THE TABULATED 'PUMP-OUT ST

11302

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chaptor 1, United States Coast Pilot.

SOURCE			
A	1990-1993	NOS Surveys	full bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage
c		Miscellaneous Surveys	



ABBREVIATIONS (For complete list of Symbo
Aids to Navigation (lights are white unless otherw

AERO aeronautical
Al alternating
B black
Bn beacon
C can
DIA diaphone
F fixed
Fl flashing
G green
IQ interruptec
Iso isophase
LT HO lighth
M nautical mi
m minutes
MICRO TR n
Mkr marker

Bottom characteristics:
Blds boulders
bk broken
Cy clay
Co coral
G gravel
Grs grass

Miscellaneous:
AUTH authorized
ED existence doubtful
Obstn obst
PA position
(21) Wreck, rock, obstruction, or shoal sv
(2) Rocks that cover and uncover, with
COLREGS: International Regulations for
Demarcation lines are shown

F
Locations of public marine faci
with leaders and refer to the facility

All craft should
divers flag, a red s
stripe, is displayed

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Joins page 10

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.

North

SERVICES												SUPPLIES						
RTHS-MOORINGS (TRANSIENTS)	RAMP	REPAIRS	MARINE RAILWAY-FEET	LIFT CAPACITY-TONS	BOAT RENTAL	CANOE-ROW-MOTOR-KAYAK	CHARTER-HOUSE-SAIL	FOOD-LODGING-CAMPING	TOILETS-SHOWERS-LAUNDRY	PUMP-OUT STATION	WINTER STORAGE WET-DRY	WATER-ICE	NAUTICAL CHART SALES	GROCERIES-HARDWARE	BAIT-TACKLE	DIESEL OIL-GASOLINE		
ET (REPORTED)	SURFACED-NATURAL		HULL-MOTOR RADIO															
RTED)			ELECTRICITY															
B	20	7	BME	S	HMR		50					TSLP	WD	C	WI	H	BT	DG

PUBLIC MARINE FACILITIES ARE SHOWN ON THE CHART BY MAGENTA NUMBERS AND LEADERS.
RTED)" IS THE DEPTH AVAILABLE FROM THE NEAREST NATURAL OR DREDGED CHANNEL TO THE FACILITY.
STATION" IS DEFINED AS FACILITIES AVAILABLE FOR PUMPING OUT BOAT HOLDING TANKS.

MARINE WEATHER FORECASTS
NATIONAL WEATHER SERVICE

CITY	TELEPHONE NUMBER
Brownsville, TX	*(956) 504-1432

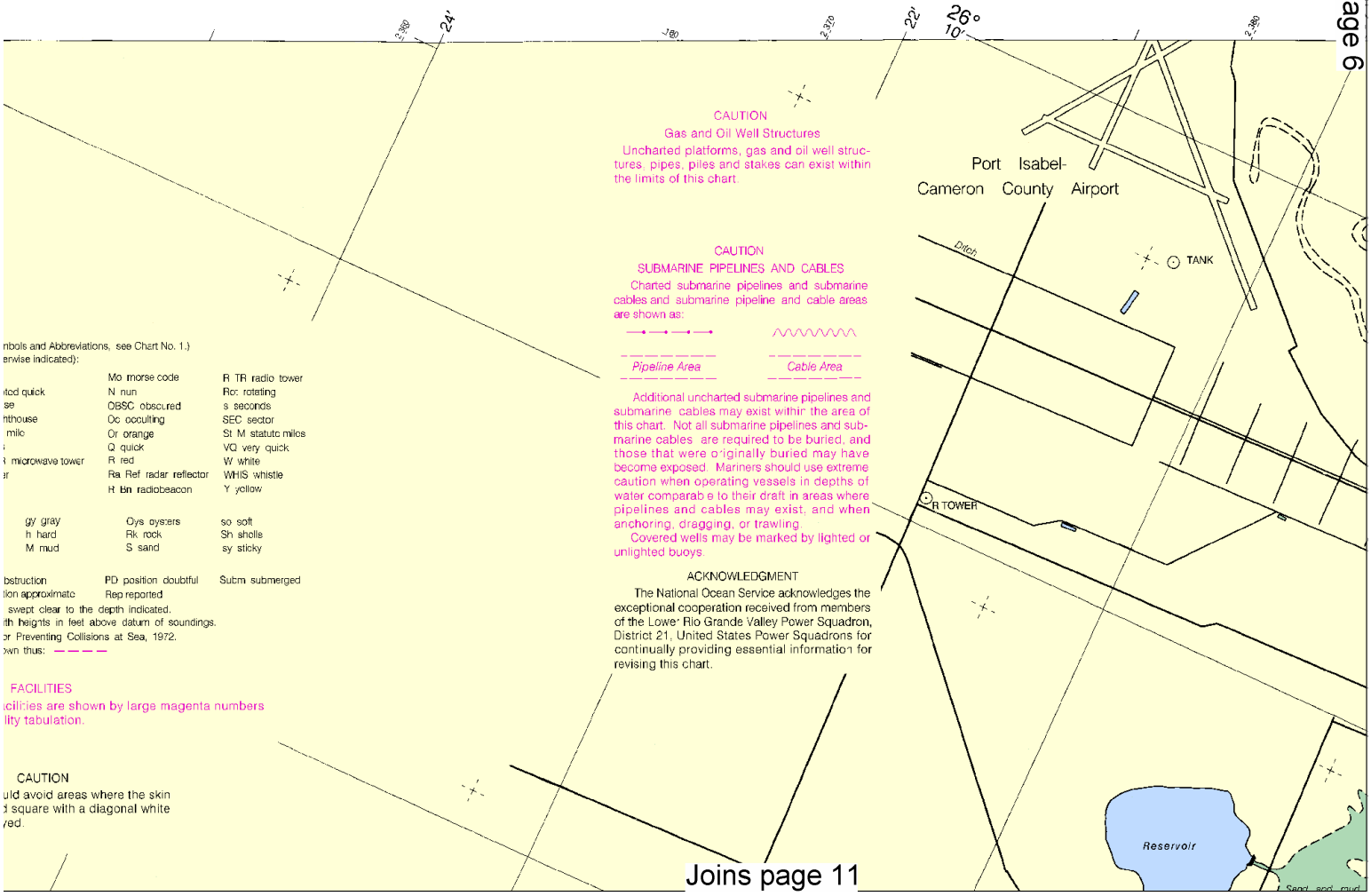
*Recording (24 hours daily)

NOAA WEATHER RADIO BROADCASTS

The National Weather Service station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 miles from the antenna site, but can be as much as 100 nautical miles for stations at high e evations.

Brownsville, TX	WWG-34	162.55 MHz

Joins page 6



Joins page 11

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:53333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

MARINE WEATHER FORECASTS
NATIONAL WEATHER SERVICE

CITY	TELEPHONE NUMBER	OFFICE HOURS
Brownsville, TX	*(956) 504-1432	8:00 AM-4:30 PM (Mon.-Fri.)

*Recording (24 hours daily)

NOAA WEATHER RADIO BROADCASTS

The National Weather Service station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 miles from the antenna site, but can be as much as 100 nautical miles for stations at high e evations.

Brownsville, TX	WWG-34	162.55 MHz

BROADCASTS OF M
CITY

Port Isabel, TX

Port Aransas, TX
Corpus Christi, TX
Port Isabel, TX
Port Isabel, TX
Robstown, TX

Distress calls for sma
channel 16 (156.80 M

T | DG

UITY.

Formery 898-SC, 1st Ed., 1970 KAPP 122

Joins page 5

CAUTION
Gas and Oil Well Structures

Uncharted platforms, gas and oil well structures, pipes, piles and stakes can exist within the limits of this chart.

CAUTION
SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist withir the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparab e to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

ACKNOWLEDGMENT

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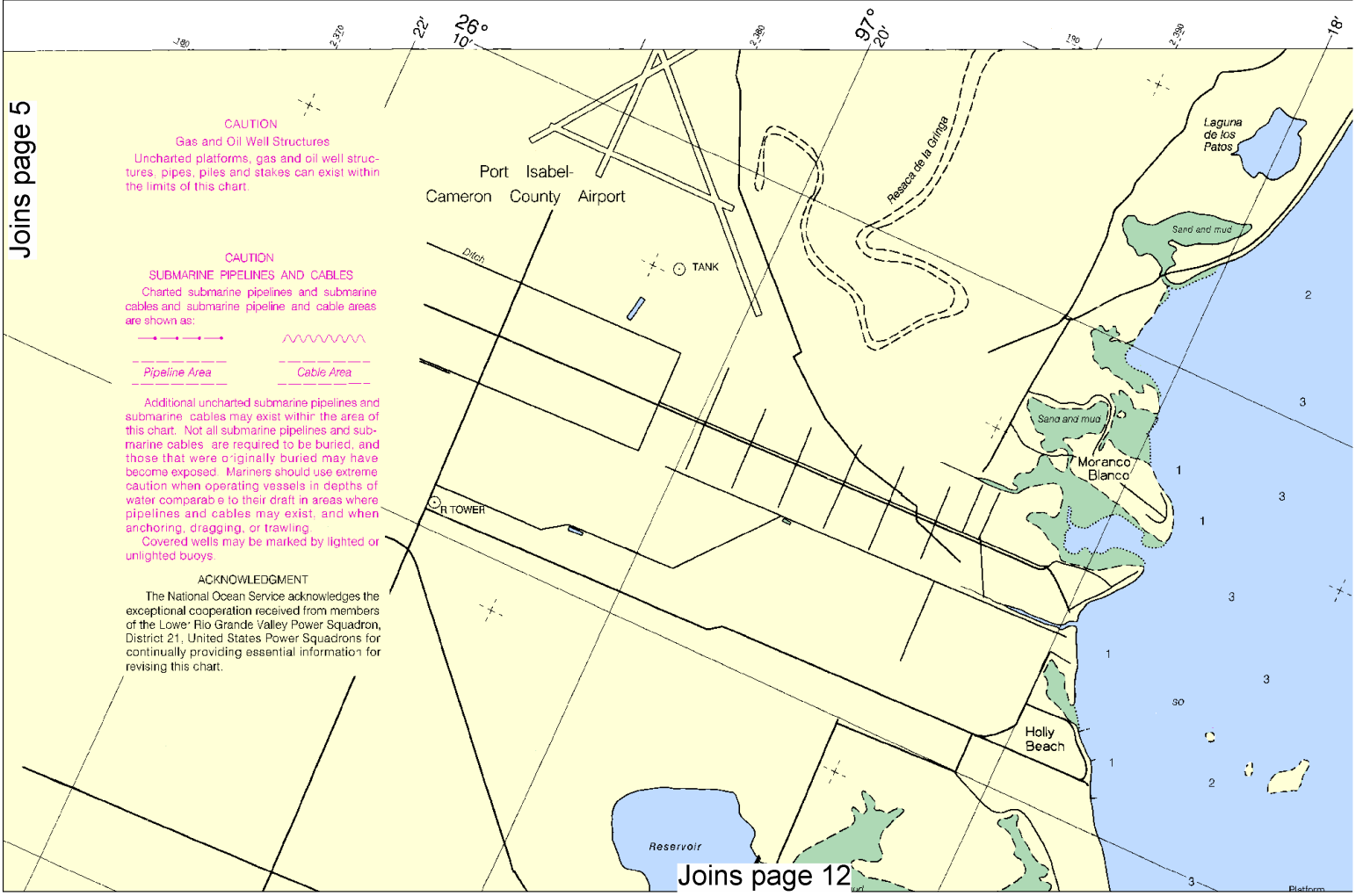


Joins page 12

North

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles
1 ½ 0 1 2 3

Yards
1000 0 1000 2000 3000 4000 5000

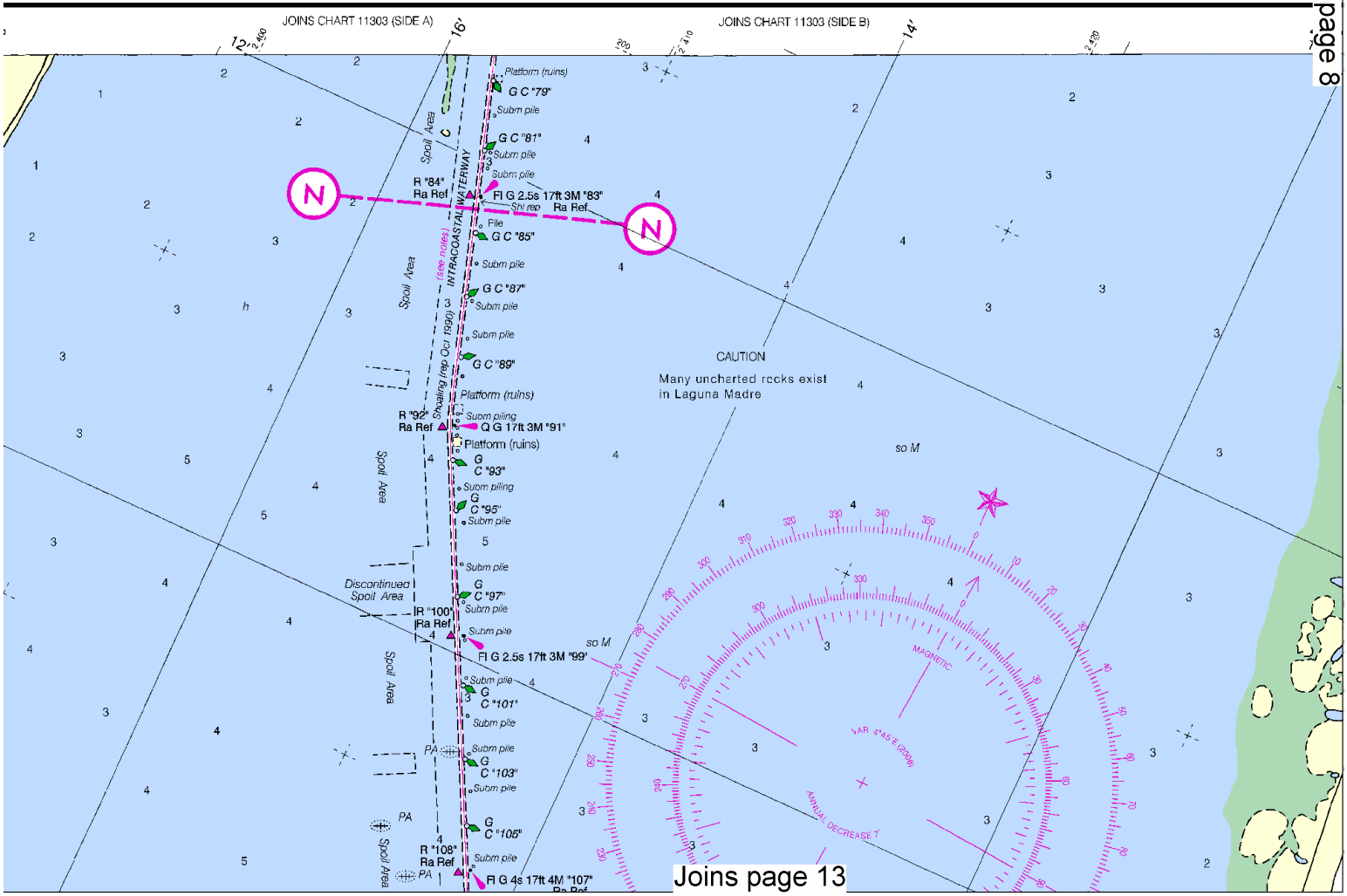
See Note on page 5.

MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

STATION	FREQUENCY	BROADCAST TIMES-CST	SPECIAL WARNING
NCH	2670 kHz	4:40, 6:40 &10:40 AM 4:40 PM	On receipt
	157.1 MHz	5:00, 11:00 AM & 5:00 PM	On receipt
NOY-3	2670 kHz	4:40, 6:40 &10:40 AM 4:40 PM	On receipt
NOY-8	2670 kHz	4:40, 6:40 &10:40 AM 4:40 PM	
"	2670 kHz	4:40, 6:40 &10:40 AM 4:40 PM	
"	157.1 MHz	5:00, 11:00 AM & 5:00 PM	
"	157.1 MHz	5:00, 11:00 AM & 5:00 PM	

mall craft are mace on 2182 kHz or
) MHz) VHF.

Joins page 8



Joins page 13

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: n/a .

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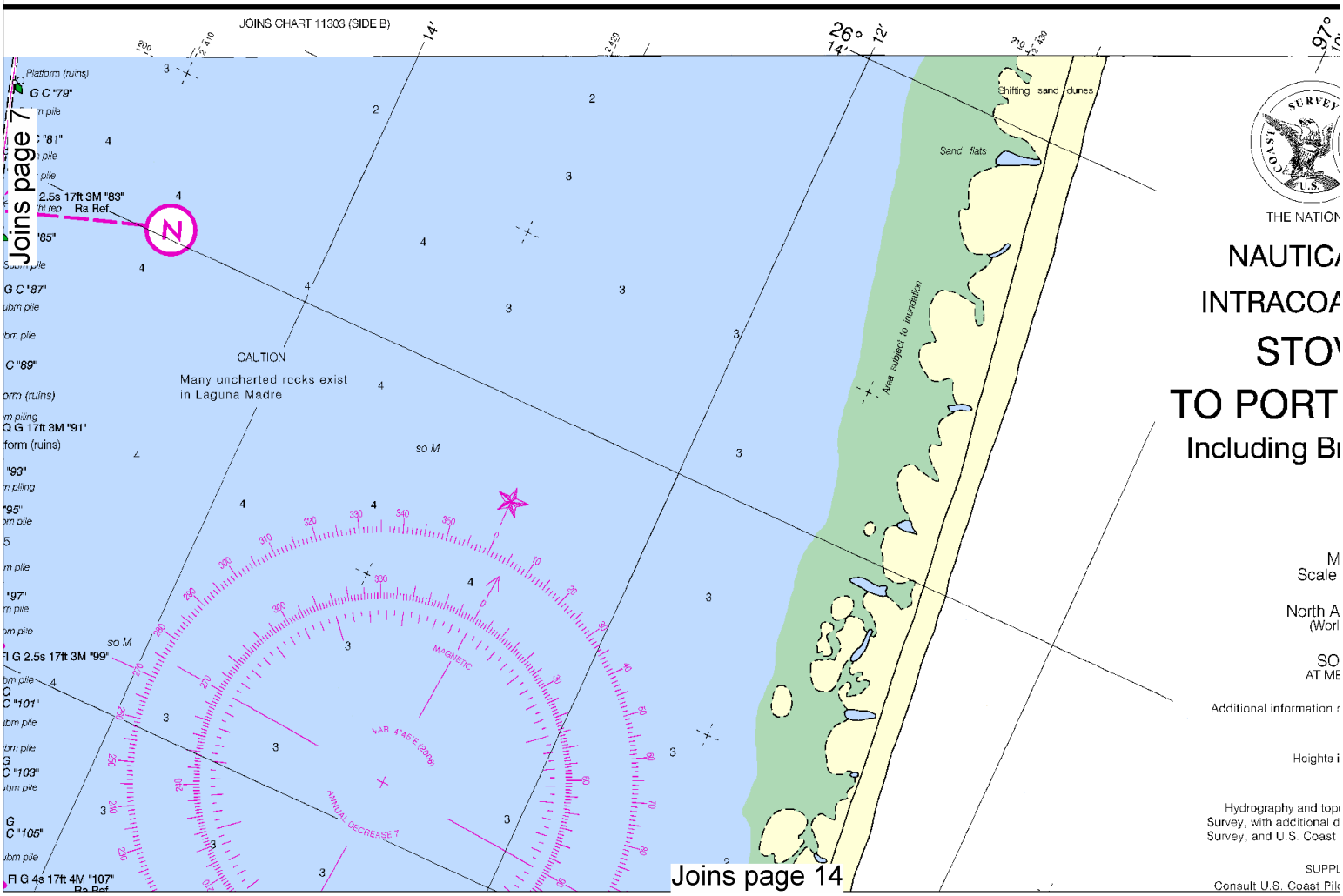


North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1 2 3

Yards
1000 0 1000 2000 3000 4000 5000

NAUTICAL CHART 11302

INTRACOASTAL WATERWAY

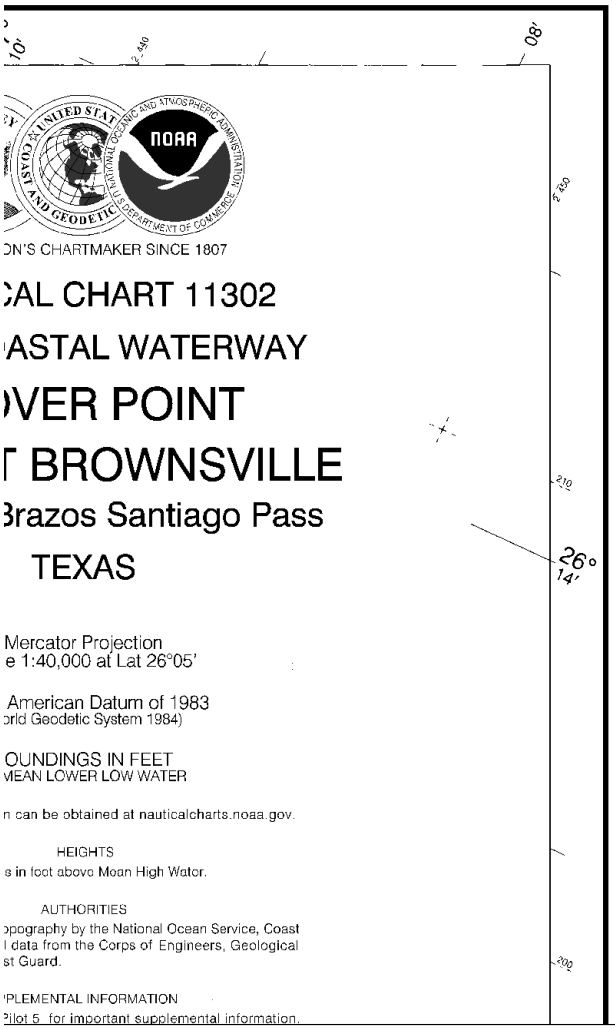
THE NATION'S CHARTMAKER SINCE 1807

TEXAS

STOVER POINT TO PORT BROWNSVILLE

INCLUDING BRAZOS SANTIAGO PASS

11302



ON'S CHARTMAKER SINCE 1807

CAL CHART 11302

ASTAL WATERWAY

VER POINT

T BROWNSVILLE

Brazos Santiago Pass

TEXAS

Mercator Projection
e 1:40,000 at Lat 26°05'

American Datum of 1983
orld Geodetic System 1984)

OUNDINGS IN FEET
MEAN LOWER LOW WATER

n can be obtained at nauticalcharts.noaa.gov.

HEIGHTS
s in feet above Mean High Water.

AUTHORITIES
opography by the National Ocean Service, Coast
l data from the Corps of Engineers, Geological
st Guard.

PLEMENTAL INFORMATION
Pilot 5 for important supplemental information.

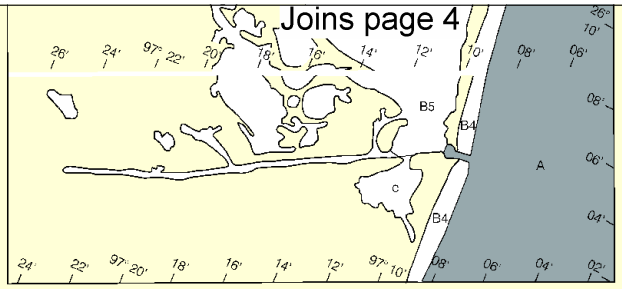
Chart 11302 32nd Ed., Jan. /08 ■
Corrected through NM Jan. 12/08, I NM Jan. 01/08
Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

NSN 7642014010202
NGA REFERENCE NO. 11BHA11302
ED. NO. 32

Joins page 15

TING INSTRUCTION PROGRAMS

Joins page 4



SIDE A

Bottom characteristics:
Blds boulders
bk broken
Cy clay
Co coral
G gravel
Grs grass

Miscellaneous:
AUTH authorized
ED existence doubtful
Obstn obst
PA position
(21) Wreck, rock, obstruction, or shoal sv
(2) Rocks that cover and uncover, with
COLREGS: International Regulations for
Demarcation lines are shown

F
Locations of public marine faci
with leaders and refer to the facility

All craft should
divers flag, a red s
stripe, is displayed

HURRICANES A
Hurricanes, tropical sto
cause considerable dam
navigation and moored ve
in unknown locations.
Charted soundings, cha
reflect actual conditions fo
navigation may have been
have been moved from the
extinguished or otherwise
not rely upon the position
Wrecks and submerged ob
from charted locations. Pip
or moved.
Mariners are urged to
requested to report aids
hazards to navigation to the
unit.

INTRACO
Pro
12 feet Carrabe
The controlling
ically in the U.S. C
Mariners.

The Waterway is
Mileage distances
are in Statute Mile
Lock, LA, and are i
Tables for conv
national Nautical M
Pilot 5.

SAFETY HINTS

1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
4. The compass on your chart shows the variation from true north, however you must also correct your bearing for the deviation of your boat.
5. Constantly use your chart from the beginning to the end of each trip. Keep in mind the orientation of your boat with respect to the chart.
6. Maintain your position on the chart by relating charted features with those you can identify in your surroundings.

RULES OF THE ROAD
(ABRIDGED)

Motorless craft have the right-of-way in almost all cases.
Sailing vessels and motorboats less than sixty-five feet in length shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.
A motorboat being overtaken has the right-of-way.
Motorboats approaching head to head or nearly so should pass port to port.
When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.
Motorboats must keep to the right in narrow channels when safe and practicable.
Mariners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules."

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communicat on is impossible (33 CFR 153).

CAUTION
WARNINGS CONCERNING LARGE VESSELS

The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sailboats and sailboards may unexpectedly find themselves unable to maneuver. Bow and stem waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

SCA
NAU
1 ½ 0
STA
1 ½ 0
1000 0
LATITUDE
1′ 45″ 30″ 15″ 0″

LOGARI
1 2 3 4 5 6
To find SPEED, place one point of dividers on distance run (ir
right point on 60 and left point will then indicate speed in units pe

Loma Alta Lake

Joins page 16

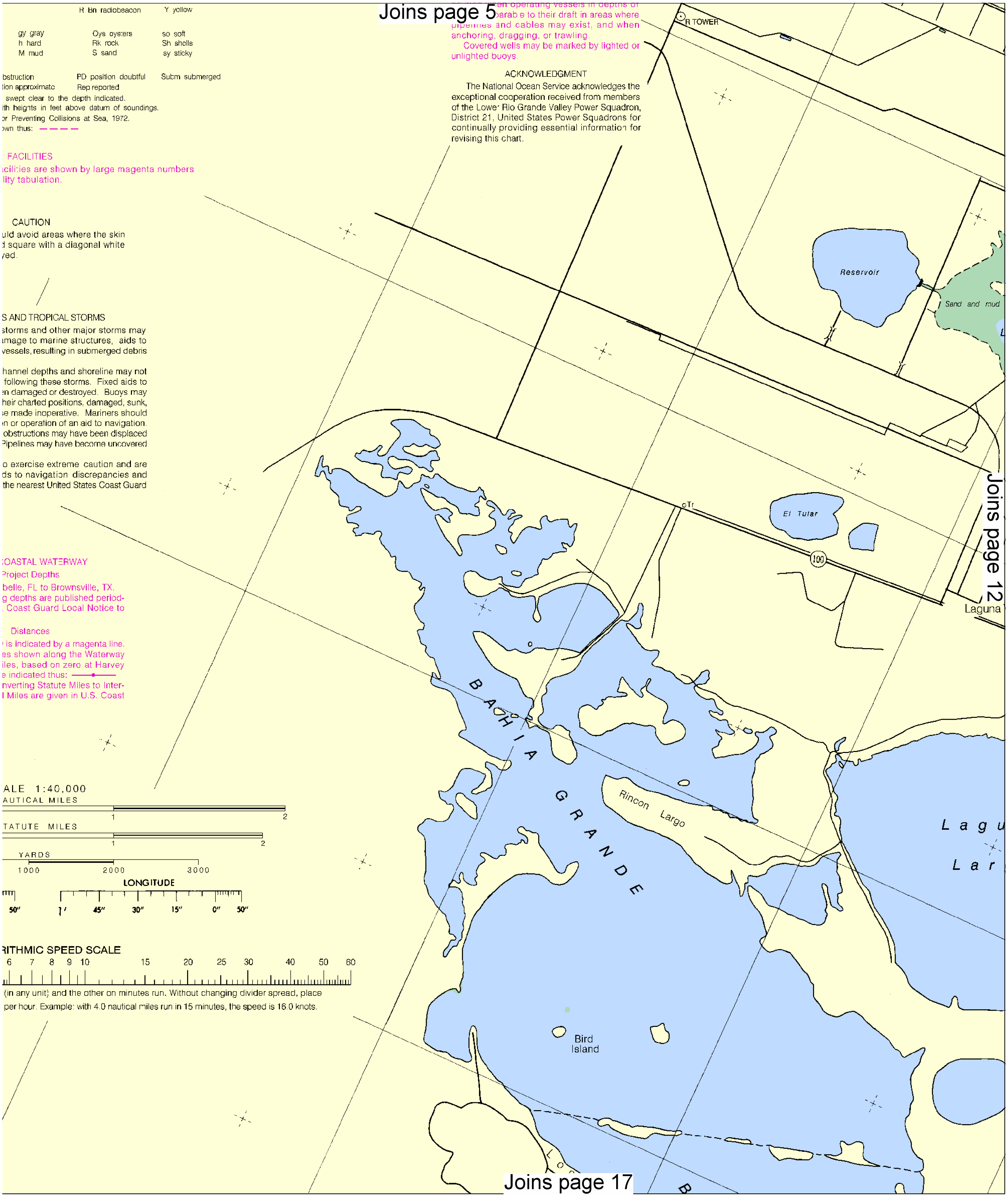
North

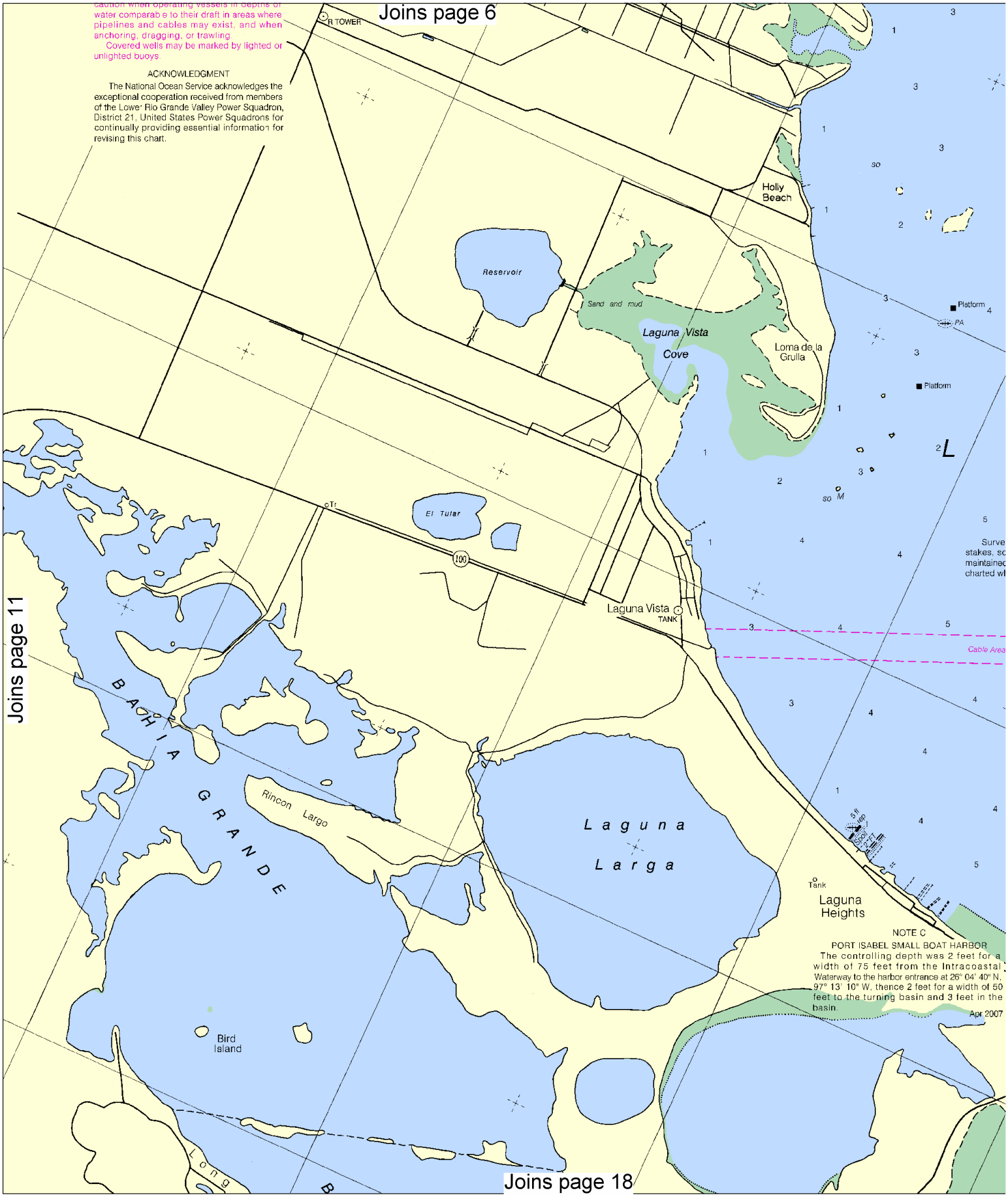
Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles
1 ½ 0 1 2 3

Yards
1000 0 1000 2000 3000 4000 5000

See Note on page 5.


R Bn radiobeacon
Y yellow
gy gray
h hard
M mud
Oys oysters
Rk rock
S sand
so soft
Sh shells
sy sticky
bstruction
tion approximate
PD position doubtful
Rep reported
Subm submerged
swept clear to the depth indicated.
th heights in feet above datum of soundings.
or Preventing Collisions at Sea, 1972.
own thus:
FACILITIES
acilities are shown by large magenta numbers
ility tabulation.
CAUTION
uld avoid areas where the skin
d square with a diagonal white
yed.
S AND TROPICAL STORMS
storms and other major storms may
amage to marine structures, aids to
vessels, resulting in submerged debris
hannel depths and shoreline may not
following these storms. Fixed aids to
en damaged or destroyed. Buoys may
heir charted positions, damaged, sunk,
be made inoperative. Mariners should
on or operation of an aid to navigation.
obstructions may have been displaced
Pipelines may have become uncovered
o exercise extreme caution and are
ds to navigation discrepancies and
the nearest United States Coast Guard
COASTAL WATERWAY
Project Depths
belle, FL to Brownsville, TX.
g depths are published period-
Coast Guard Local Notice to
Distances
is indicated by a magenta line.
es shown along the Waterway
iles, based on zero at Harvey
e indicated thus:
nverting Statute Miles to Inter-
l Miles are given in U.S. Coast
ALE 1:40,000
AUTICAL MILES
TATUTE MILES
YARDS
1000
2000
3000
LONGITUDE
50″
1′
45″
30″
15″
0″
50″
RITHMIC SPEED SCALE
6 7 8 9 10 15 20 25 30 40 50 60
(in any unit) and the other on minutes run. Without changing divider spread, place
per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.
Joins page 5
parable to their draft in areas where
pipelines and cables may exist, and when
anchoring, dragging, or trawling.
Covered wells may be marked by lighted or
unlighted buoys.
ACKNOWLEDGMENT
The National Ocean Service acknowledges the
exceptional cooperation received from members
of the Lower Rio Grande Valley Power Squadron,
District 21, United States Power Squadrons for
continually providing essential information for
revising this chart.
R TOWER
Reservoir
Sand and mud
El Tular
Tr
100
Laguna
Joins page 12
BAHIA GRANDE
Rincon Largo
Lagu
Lar
Bird Island
Joins page 17

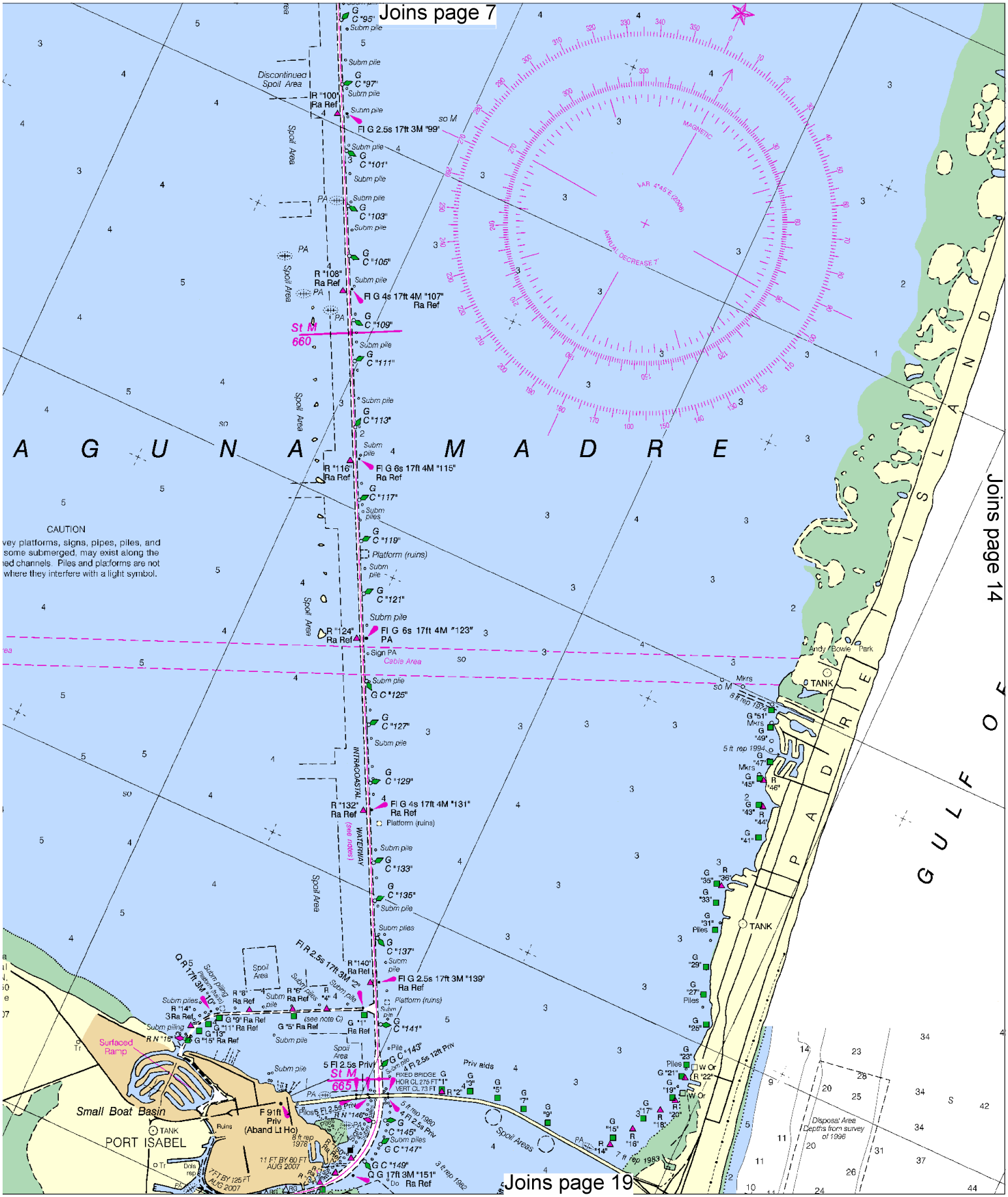


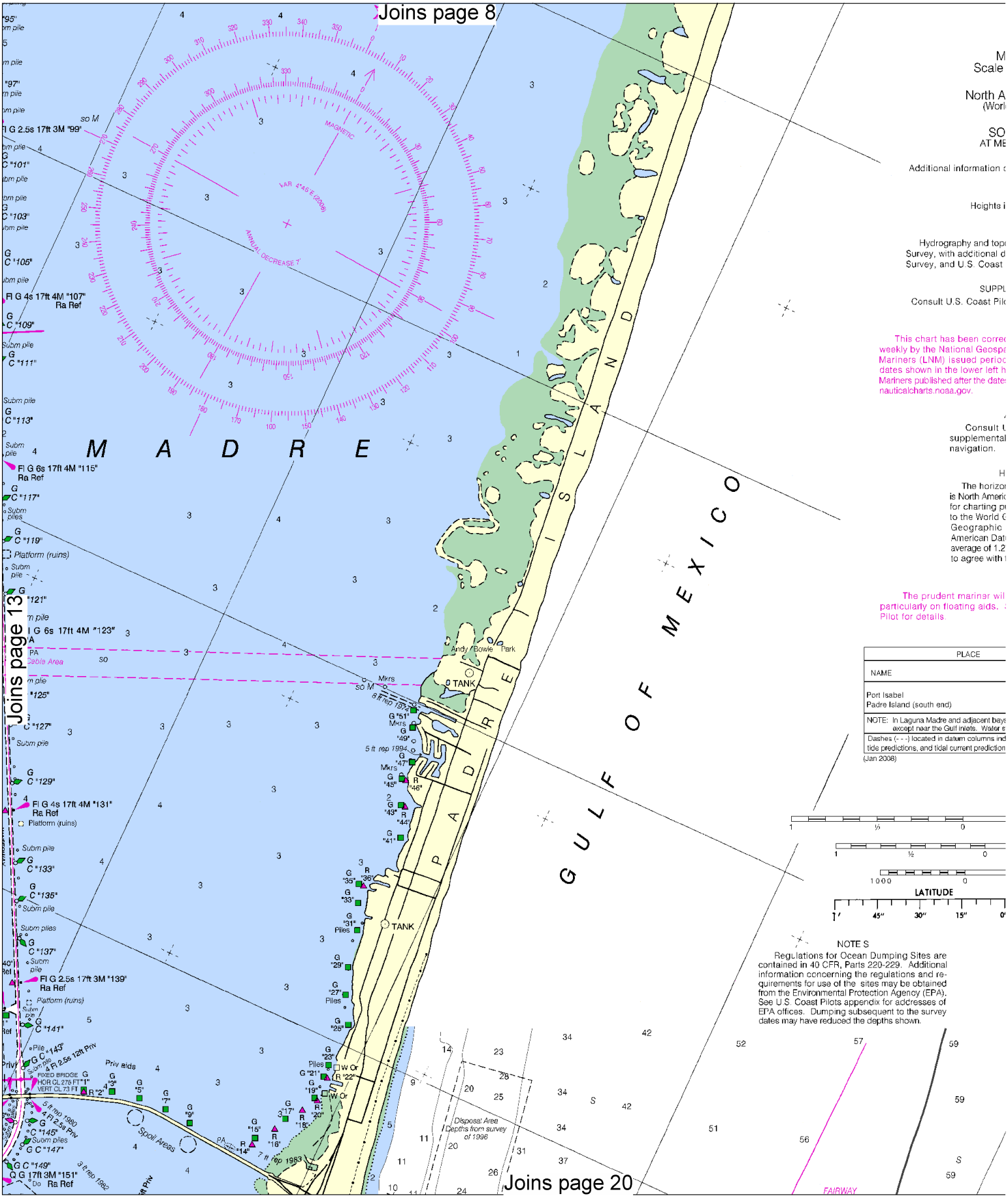
North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000


Joins page 7
Joins page 14
Joins page 19
A G U N A M A D R E
G U L F O F
P A D R E I S L A N D
CAUTION
vey platforms, signs, pipes, piles, and some submerged, may exist along the ed channels. Piles and platforms are not where they interfere with a light symbol.
Discontinued Spoil Area
Spoil Area
PA
Fl G 2.5s 17ft 3M "99"
Fl G 4s 17ft 4M "107" Ra Ref
Fl G 6s 17ft 4M "115" Ra Ref
Fl G 6s 17ft 4M "123" PA
Fl G 4s 17ft 4M "131" Ra Ref
Fl G 2.5s 17ft 3M "139" Ra Ref
Fl R 2.5s 17ft 3M "4"
Q R 17ft 3M "10"
St M 660
St M 665
INTRACOASTAL WATERWAY
Cable Area
Platform (ruins)
Subm pile
Subm piles
Sign PA
Surfaced Ramp
Small Boat Basin
PORT ISABEL
TANK
Ruins
F 91ft Priv (Aband Lt Ho)
5 Fl 2.5s Priv
Fl 2.5s 12ft Priv
Priv aids
FIXED BRIDGE
HOR CL 275 FT
VERT CL 73 FT
Spoil Areas
Disposal Area Depths from survey of 1998
Andy Bowie Park
Mkrs
Piles
W Or
11 FT BY 60 FT AUG 2007
7 FT BY 125 FT AUG 2007
8 ft rep 1978
5 ft rep 1994
7 ft rep 1983
3 ft rep 1962



14

North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

TEXAS

Joins page 9

Chart 11302 32nd Ed., Jan./08
Corrected through NM Jan. 12/08, I NM Jan. 01/08
Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

NSN 7642014010202
NGA REFERENCE NO. 11BHA11302
ED. NO. 32

Mercator Projection
e 1:40,000 at Lat 26°05'

American Datum of 1983
orld Geodetic System 1984)

OUNDINGS IN FEET
MEAN LOWER LOW WATER

n can be obtained at nauticalcharts.noaa.gov.

HEIGHTS
s in feet above Mean High Water.

AUTHORITIES
opography by the National Ocean Service, Coast
l data from the Corps of Engineers, Geological
st Guard.

'PLEMENTAL INFORMATION
Pilot 5 for important supplemental information.

CAUTION
rected from the Notice to Mariners (NM) published
patial-Intelligence Agency and the Local Notice to
odically by each U.S. Coast Guard distr ct to the
t hand corner. Chart updates corrected from Notice to
ates shown in the lower left hand corner are available at

AIDS TO NAVIGATION
t U.S. Ccast Guard Light List for
tal informat on concerning aids to

HORIZONTAL DATUM
zontal reference datum o' this chart
erican Datum of 1983 (NAD 83), which
purposes is considered equivalent
d Geodetic System 1984 (WGS 84).
c positions referred to the North
Datum of 1927 must be corrected an
1.279" northward and 0.921" westward
th this chart.

WARNING
will not rely solely on any single aid to navigation,
. See U.S. Coast Guard Light List and U.S. Coast

TIDAL INFORMATION

(LAT/LONG)	Height referred to datum o' soundings (MLLW)		
	Mean Higher High Water	Mean High Water	Mean Low Water
	feet	feet	feet
(26°04'N/097°13'W)	1.4	1.3	0.2
(26°04'N/097°09'W)	1.5	1.4	0.2

ays the periodic tide has a mean range of less than one-half foot,
r stages vary greatly with weather conditions.
indicate unavailable datum values for a tide station. Real-time water levels
ions are available on the Internet from http://tidesandcurrents.noaa.gov.

SCALE 1:40,000
NAUTICAL MILES 1 2
STATUTE MILES 1 2
YARDS 1000 2000 3000
LONGITUDE 0" 50" 1' 45" 30" 15" 0" 50"

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

SIDE A

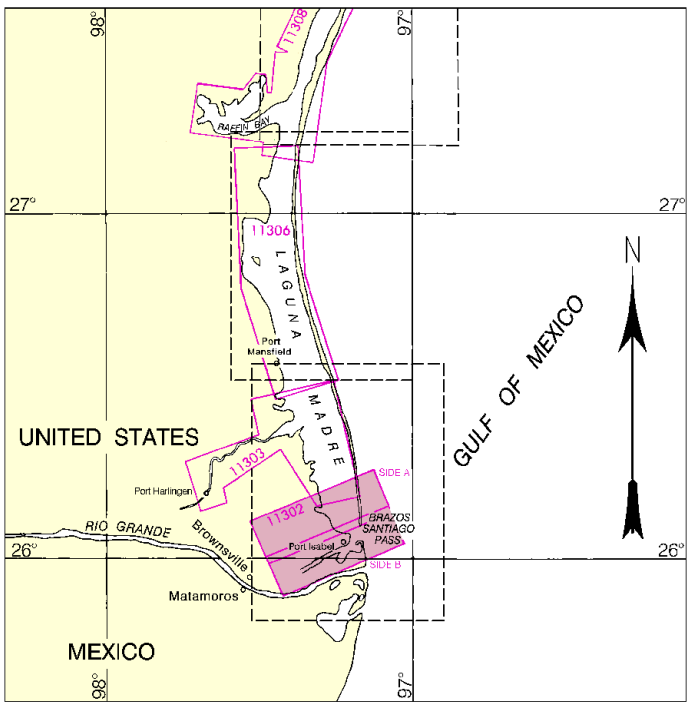
PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadrons (USPS) and U.S. Coast Guard Auxiliary (USCGAUX), national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses, contact the following sources:

USPS - Local Squadron Commander or USPS Headquarters, 1504 Blue Ridge Road, Raleigh, NC 27607, 888-367-8777

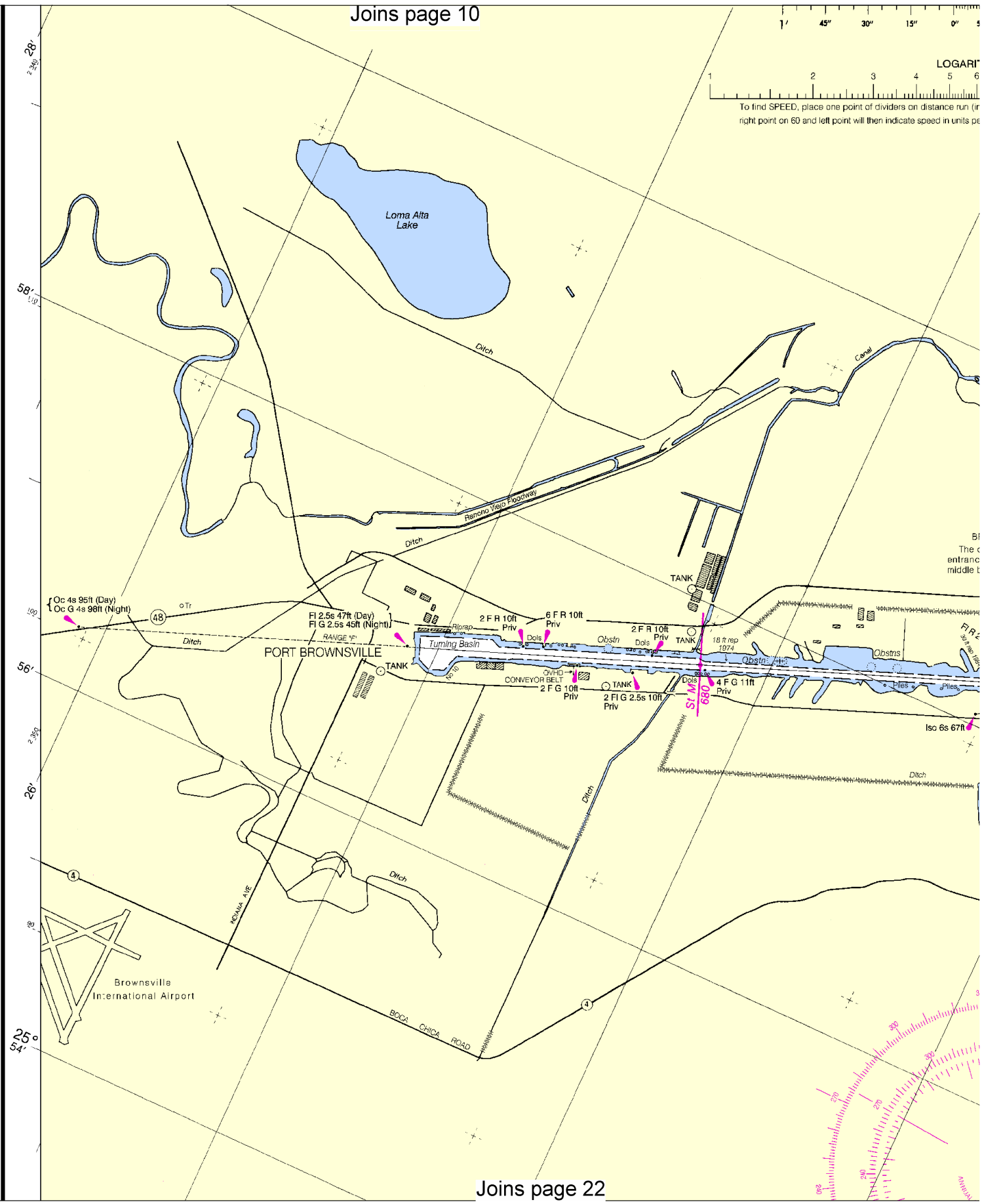
USCGAUX - COMMANDER (OAX), Eighth Coast Guard District, Hale Boggs Federal Building, Suite 1126, 500 Poydras Street, New Orleans, LA 70130, 800-524-8635 or USCG Headquarters, Office of the Chief Director (G-OCX), 2100 Second Street, SW, Washington, DC 20593

NAUTICAL CHART DIAGRAM



Joins page 21

Joins page 10



Joins page 22

SIDE B

16

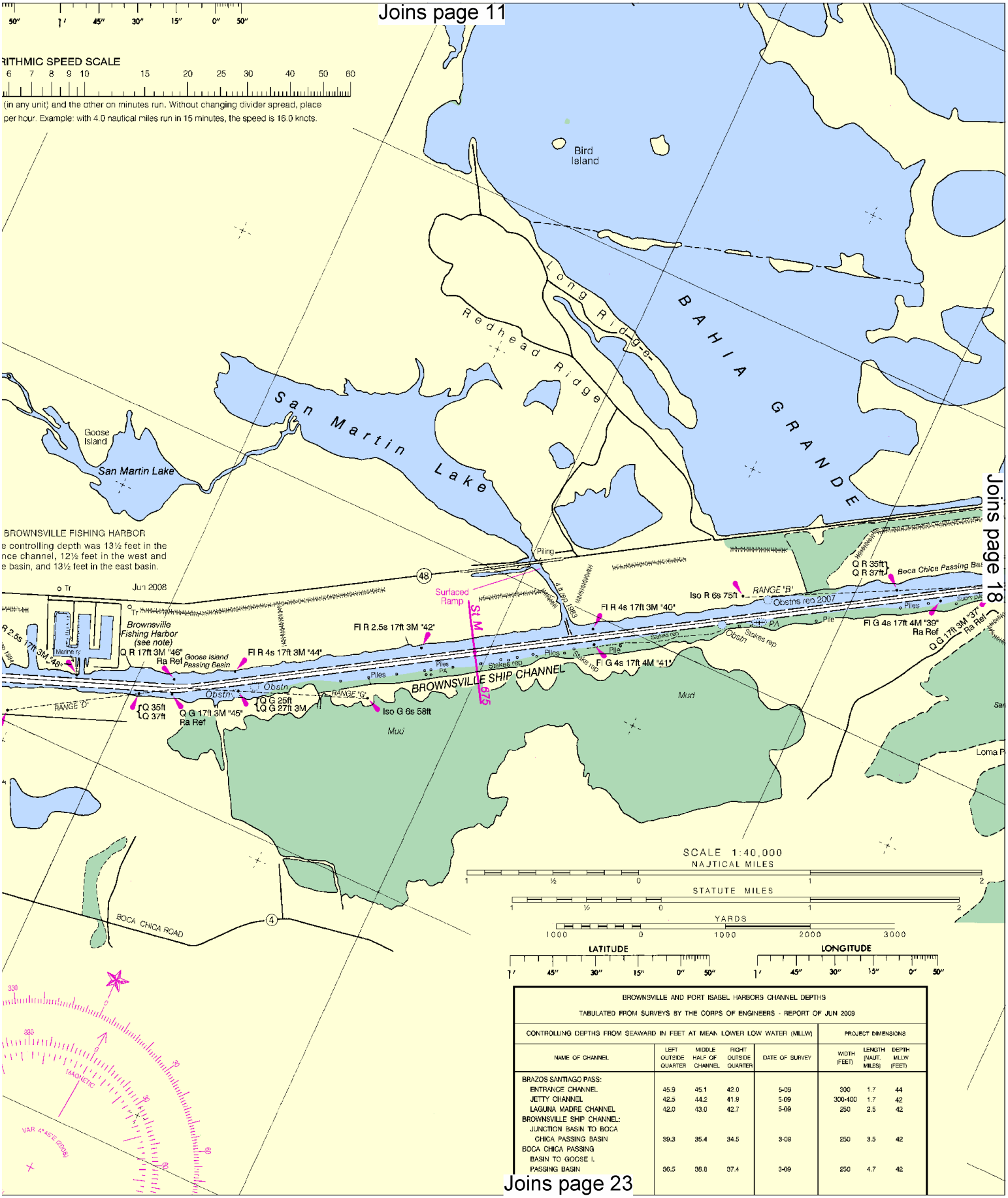
North

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.

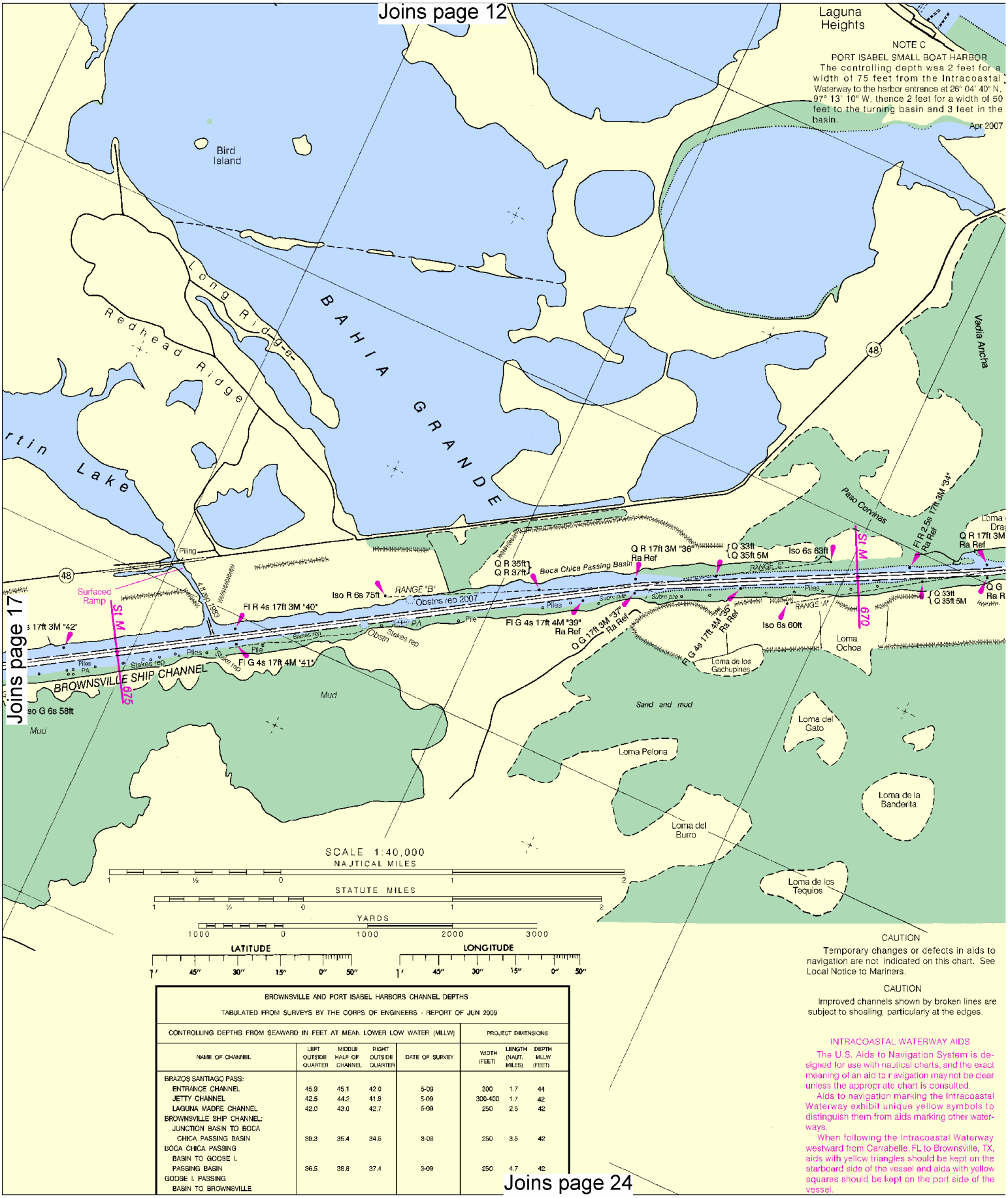


BROWNSVILLE AND PORT ISABEL HARBORS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2009

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
BRAZOS SANTIAGO PASS:							
ENTRANCE CHANNEL	45.9	45.1	42.0	5-09	300	1.7	44
JETTY CHANNEL	42.5	44.2	41.9	5-09	300-400	1.7	42
LAGUNA MADRE CHANNEL	42.0	43.0	42.7	5-09	250	2.5	42
BROWNSVILLE SHIP CHANNEL:							
JUNCTION BASIN TO BOCA CHICA PASSING BASIN	39.3	35.4	34.5	3-09	250	3.5	42
BOCA CHICA PASSING BASIN TO GOOSE I. PASSING BASIN	36.5	38.8	37.4	3-09	250	4.7	42

Joins page 12



Joins page 17

BROWNSVILLE AND PORT ISABEL HARBORS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2009

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
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BROWNSVILLE SHIP CHANNEL:							
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BOCA CHICA PASSING BASIN TO GOOSE I. PASSING BASIN	36.5	36.8	37.4	3-09	250	4.7	42
GOOSE I. PASSING BASIN TO BROWNSVILLE							

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

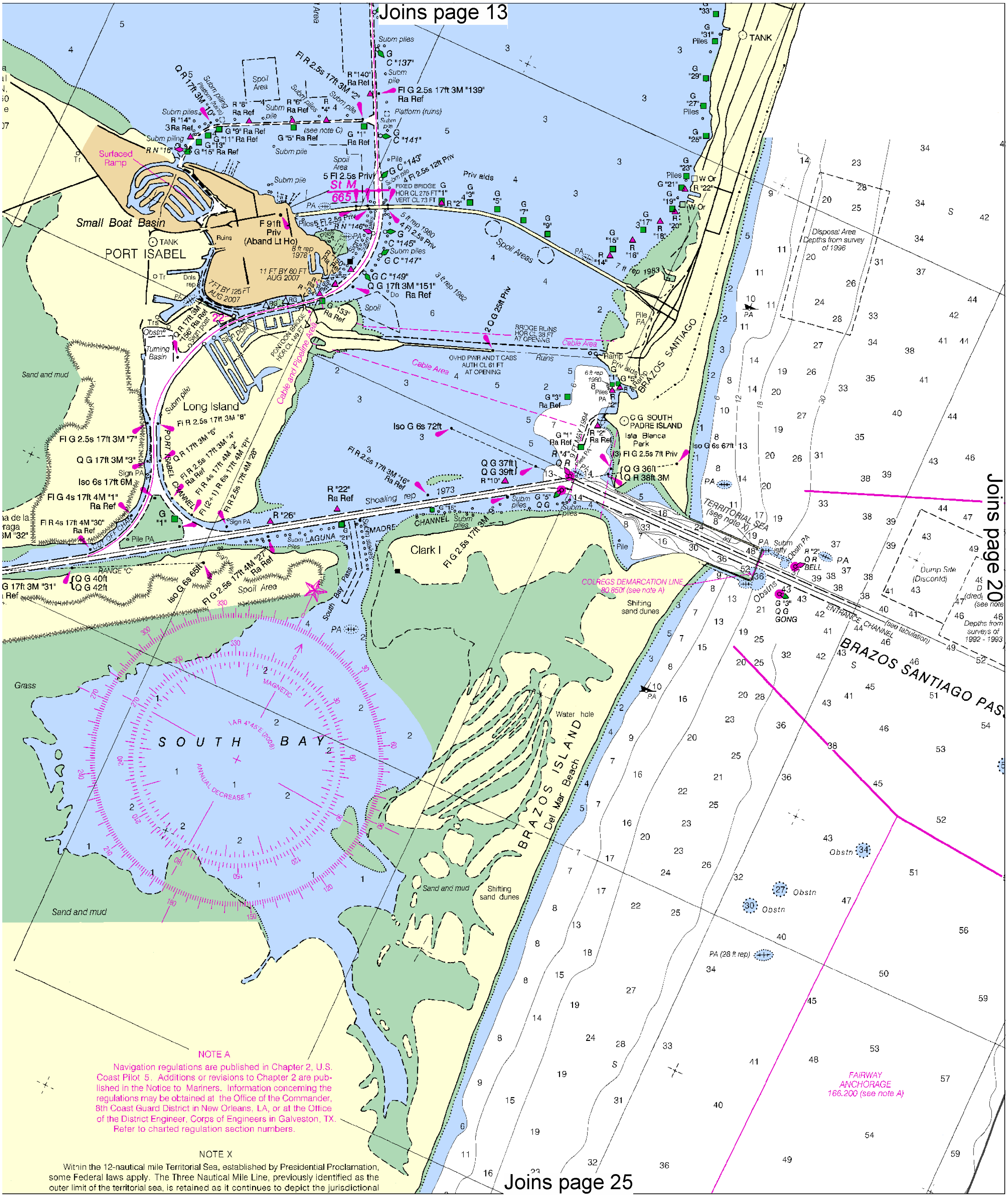
Joins page 24

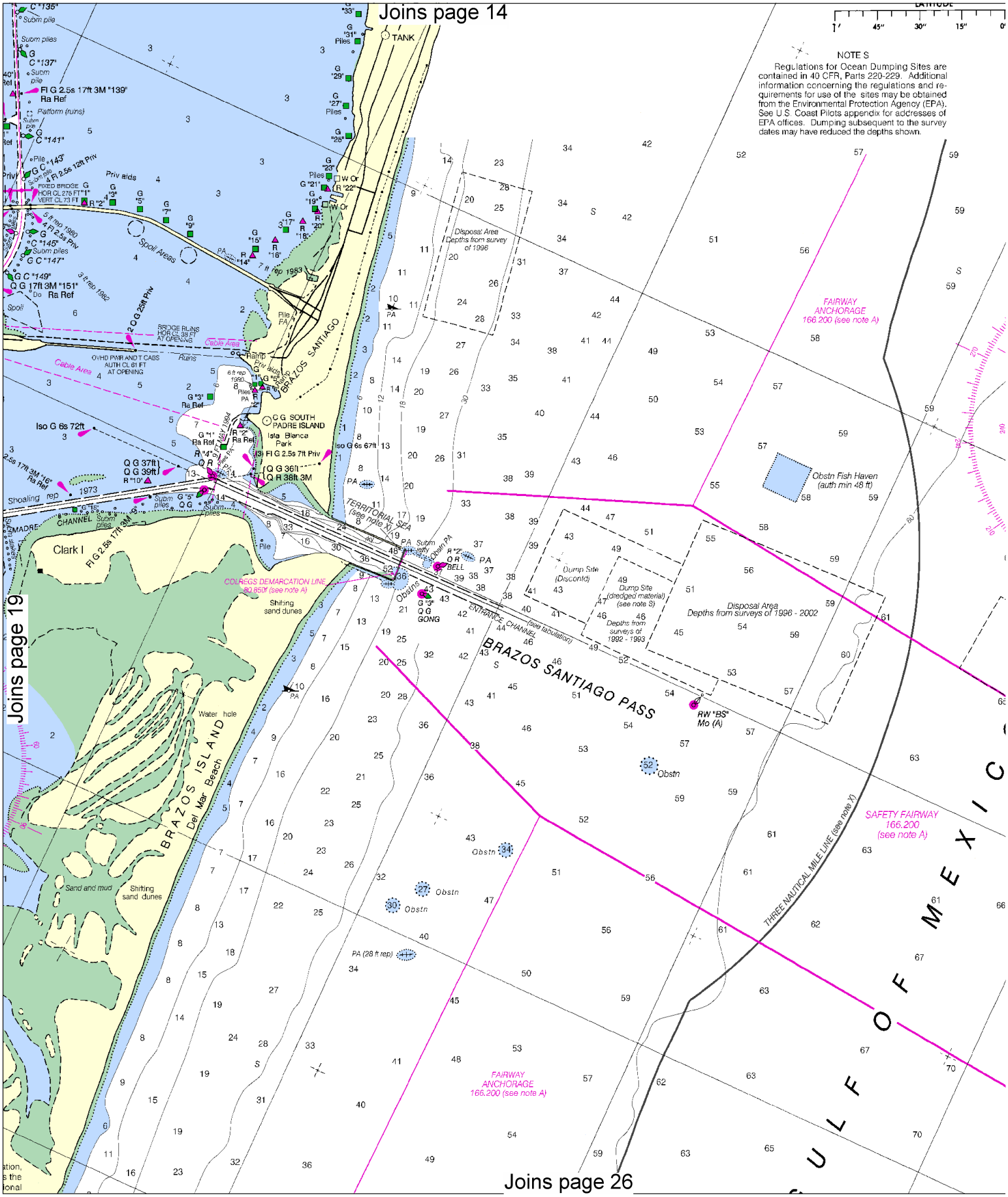
North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000


Joins page 13
Joins page 20
Joins page 25
Small Boat Basin
PORT ISABEL
TANK
Surfaced Ramp
F 91ft Priv (Aband Lt Ho)
St M 665
FIXED BRIDGE HOR CL 275 FT VERT CL 73 FT
Spoil Areas
Priv aids
Long Island
Turning Basin
Sand and mud
PORT ISABEL CHANNEL
Cable and Pipeline Area
Cable Area
BRIDGE RUINS HOR CL 38 FT AT OPENING
OVHD PWR AND T CABS AUTH CL 61 FT AT OPENING
Ruins
Iso G 6s 72ft
Shoaling rep 1973
LAGUNA MADRE CHANNEL
Clark I
South Bay Pass
Spoil Area
RANGE "C"
C G SOUTH PADRE ISLAND
Isla Blanca Park
BRAZOS SANTIAGO
TERRITORIAL SEA (see note X)
COLREGS DEMARCATION LINE 80.650f (see note A)
Shifting sand dunes
ENTRANCE CHANNEL (see tabulation)
BRAZOS SANTIAGO PASS
Disposal Area Depths from survey of 1996
Dump Site (Discontd)
Depths from surveys of 1992 - 1993
SOUTH BAY
MAGNETIC
VAR 4°45'E (2008) ANNUAL DECREASE 1'
Grass
Water hole
BRAZOS ISLAND
Del Mar Beach
Sand and mud
Shifting sand dunes
PA (28 ft rep)
FAIRWAY ANCHORAGE 166.200 (see note A)
NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 8th Coast Guard District in New Orleans, LA, or at the Office of the District Engineer, Corps of Engineers in Galveston, TX. Refer to charted regulation section numbers.
NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional



North

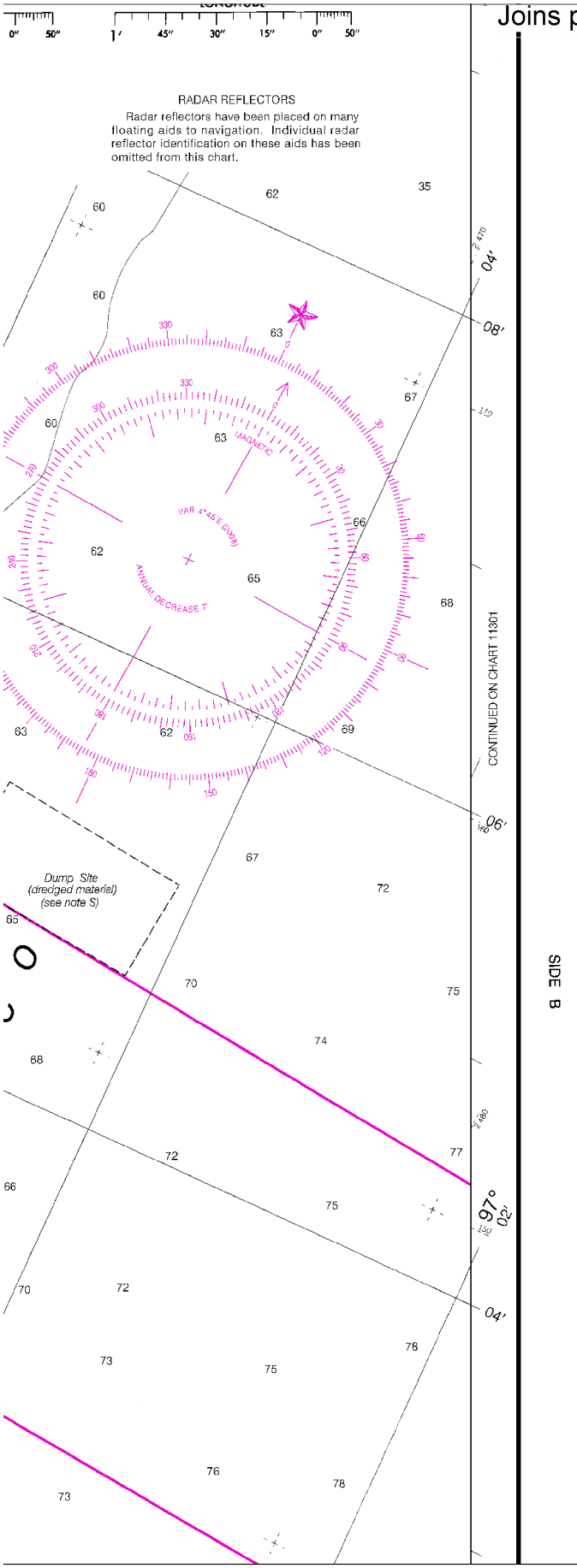
Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

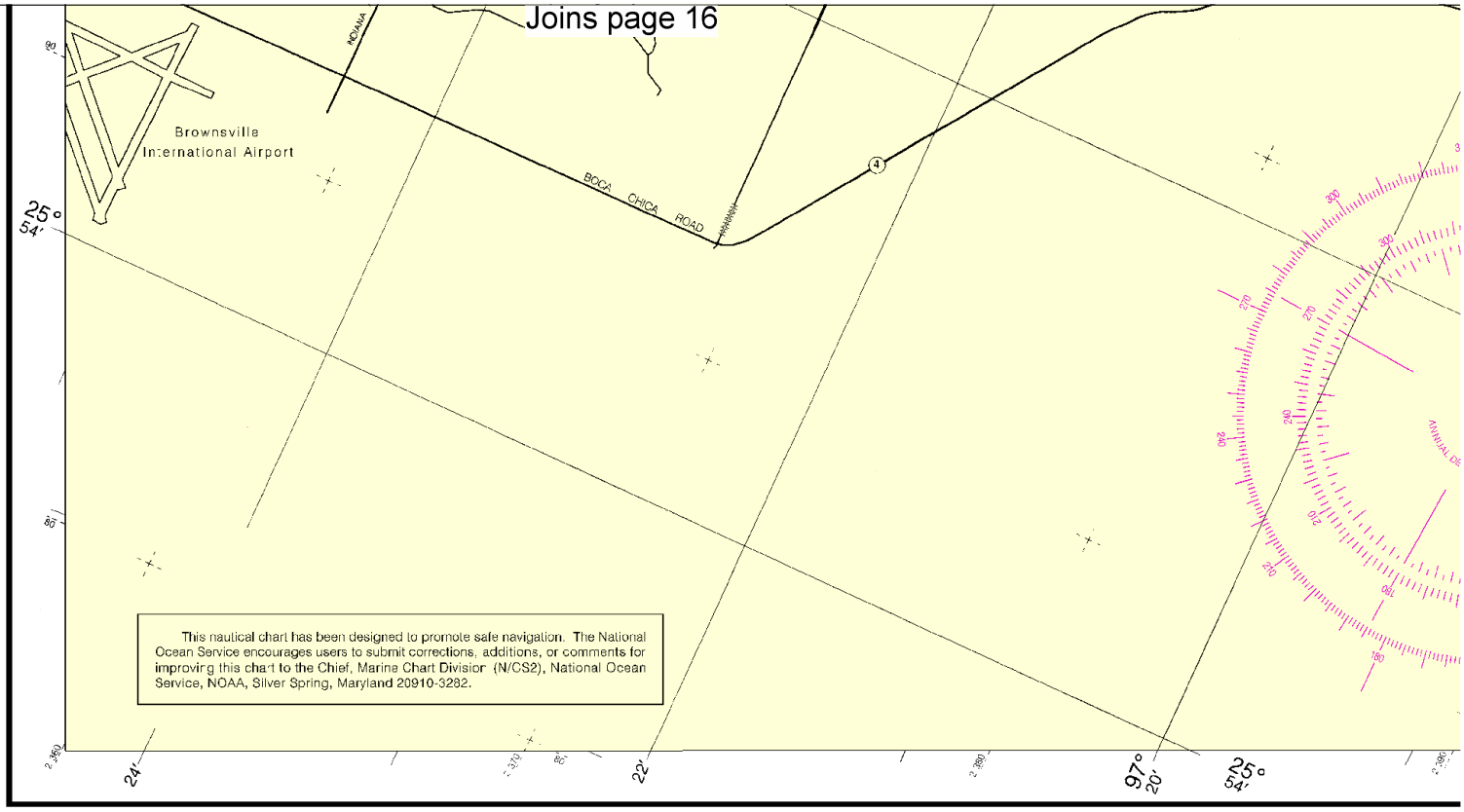
See Note on page 5.

Joins page 15



Joins page 27

Joins page 16



11302 32nd Ed., Jan. 08; Corrected through NM Jan. 12/08, LNM Jan. 01/08

PRINT-ON-DEMAND CHARTS

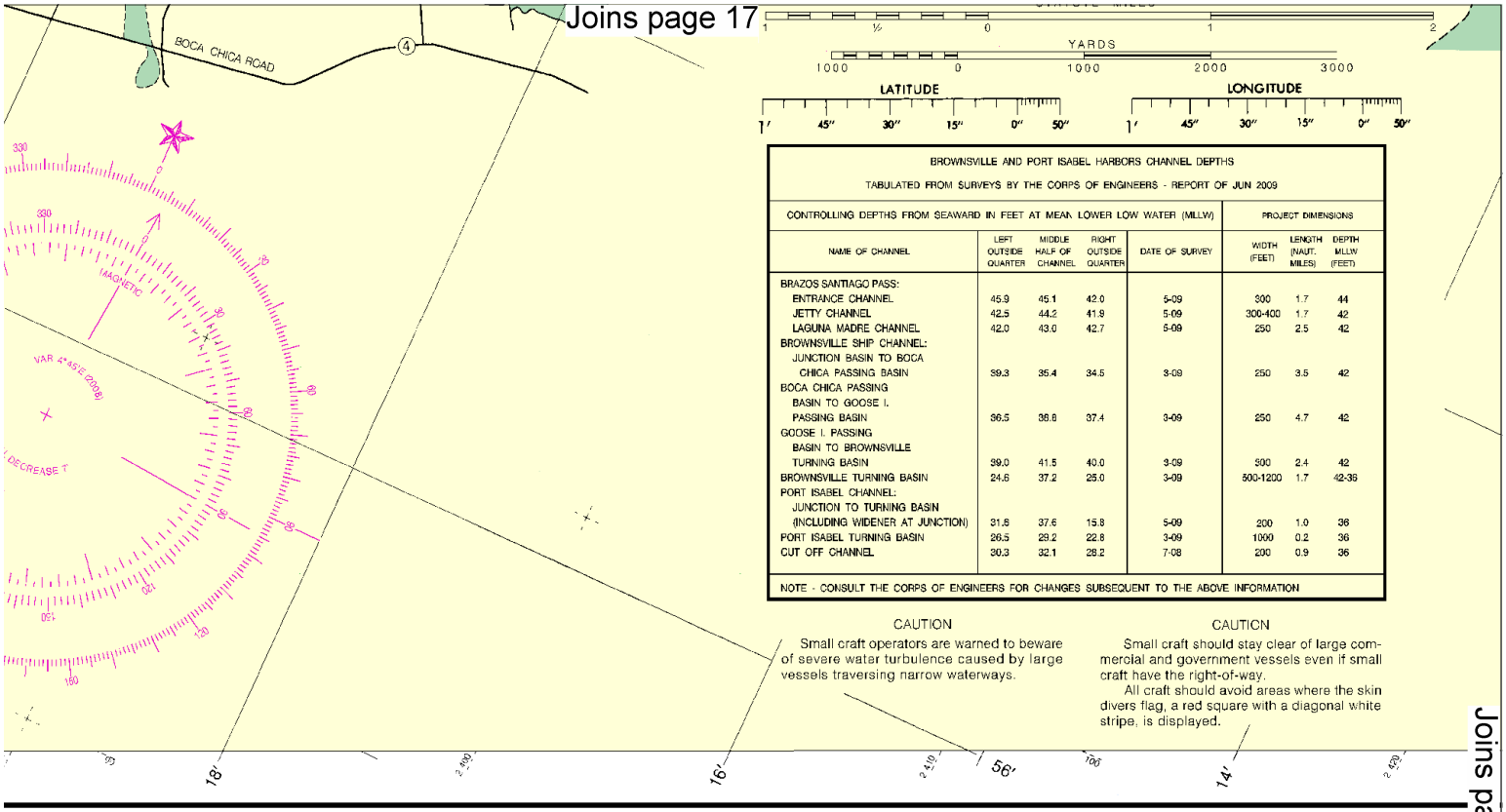
This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000



Joins page 24

BROWNSVILLE AND PORT ISABEL HARBORS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2009

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
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JETTY CHANNEL	42.5	44.2	41.9	5-09	300-400	1.7	42
LAGUNA MADRE CHANNEL	42.0	43.0	42.7	5-09	250	2.5	42
BROWNSVILLE SHIP CHANNEL:							
JUNCTION BASIN TO BOCA CHICA PASSING BASIN	39.3	35.4	34.5	3-09	250	3.5	42
BOCA CHICA PASSING BASIN TO GOOSE I. PASSING BASIN	36.5	36.8	37.4	3-09	250	4.7	42
GOOSE I. PASSING BASIN TO BROWNSVILLE TURNING BASIN	39.0	41.5	40.0	3-09	500	2.4	42
BROWNSVILLE TURNING BASIN	24.6	37.2	25.0	3-09	500-1200	1.7	42-36
PORT ISABEL CHANNEL:							
JUNCTION TO TURNING BASIN (INCLUDING WIDENER AT JUNCTION)	31.6	37.6	15.8	5-09	200	1.0	36
PORT ISABEL TURNING BASIN	26.5	29.2	22.8	3-09	1000	0.2	36
CUT OFF CHANNEL	30.3	32.1	28.2	7-08	200	0.9	36

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CAUTION

Small craft operators are warned to beware of severe water turbulence caused by large vessels traversing narrow waterways.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

JANUARY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0554	-0.2	16	0420	-0.5
Tu	1431	0.8	W	1317	0.9
	1913	0.7		1631	0.8
	2148	0.8		1912	0.9
2	0626	-0.3	17	0317	-0.7
W	1526	1.0	Th	1434	1.1
3	0655	-0.3	18	0614	-0.9
Th	1602	1.1	F	1528	1.2
4	0727	-0.6	19	0711	-1.0
F	1631	1.1	Sa	1615	1.2
5	0800	-0.7	20	0807	-1.1
Sa	1659	1.1	Su	1659	1.2
				2130	1.0
				2358	1.1
6	0835	-0.7	21	0900	-1.1
Su	1728	1.1	M	1739	1.1
	2132	0.9		2138	1.0
	2336	1.0			
7	0910	-0.8	22	0116	1.1
M	1759	1.0	Tu	0951	-1.0
	2109	0.9		1812	1.0
				2209	0.9
8	0932	1.0	23	0224	1.0
Tu	0945	-0.8	W	1036	-0.8
	1831	1.0		1840	0.9
	2129	0.9		2255	0.7
9	0116	1.0	24	0330	0.9
W	1018	-0.8	Th	1121	-0.6
	1900	1.0		1902	0.8
	2209	0.9		2351	0.6
10	0159	1.0	25	0448	0.8
Th	1054	-0.7	F	1201	-0.3
	1925	0.9		1921	0.8
	2303	0.8			
11	0250	0.9	26	0054	0.4
F	1130	-0.5	Sa	0608	0.6
	1944	0.9		1236	-0.1
				1935	0.7
12	0907	0.6	27	0135	0.2
Sa	0408	0.7	Su	0751	0.6
	1209	-0.3		1312	0.2
	1938	0.8		1945	0.7
13	0116	0.4	28	0251	0.0
Su	0612	0.6	M	0955	0.6
	1246	0.0		1341	0.5
	2007	0.8		1948	0.7
14	0222	0.1	29	0343	-0.2
M	0945	0.5	Tu	1912	0.7
	1330	0.3			
	2009	0.7			
15	0322	-0.2	30	0432	-0.3
Tu	1114	0.7	W	1513	0.8
	1427	0.6			
	2052	0.8			
			31	0520	-0.5
			Th	1536	0.9

FEBRUARY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0607	-0.5	16	0904	-0.8
F	1605	1.0	Sa	1537	1.2
2	0653	-0.6	17	0710	-0.9
Sa	1632	1.0	Su	1612	1.2
				2100	1.0
				2310	1.1
3	0736	-0.7	18	0809	-0.8
Su	1654	1.0	M	1639	1.1
				2058	1.0
4	0816	-0.7	19	0943	-1.1
M	1712	1.0	Tu	0921	-0.7
	2022	0.9		1659	1.0
	2352	1.0		2122	0.8
5	0853	-0.7	20	0138	1.1
Tu	1728	0.9	W	0947	-0.5
	2038	0.8		1715	0.9
				2137	0.7
6	0936	-1.0	21	0307	-1.0
W	0929	-0.7	Th	1028	-0.3
	1742	0.9		1729	0.9
	2117	0.8		2237	0.5
7	0201	1.0	22	0415	1.0
Th	1004	-0.6	F	1105	-0.1
	1736	0.9		1741	0.8
	2203	0.8		2317	0.3
8	0310	0.9	23	0526	0.9
F	1040	-0.4	Se	1140	0.2
	1808	0.8		1752	0.8
	2232	0.4		2337	0.1
9	0428	0.8	24	0641	0.9
Sa	1117	-0.2	Su	1212	0.4
	1817	0.8		1758	0.8
	2343	0.2			
10	0559	0.8	25	0038	0.0
Su	1136	0.1	M	0903	0.9
	1823	0.7		1244	0.6
				1755	0.8
11	0037	0.0	26	0121	-0.1
M	0742	0.8	Tu	0937	0.9
	1238	0.4		1313	0.9
	1823	0.8		1716	0.9
12	0133	-0.3	27	0209	-0.2
Tu	0937	0.8	W	1528	1.0
	1326	0.7			
	1811	0.8			
13	0235	-0.5	28	0304	-0.2
W	1142	1.0	Th	1513	1.1
	1431	0.9			
	1717	1.0			
14	0343	-0.6	29	0408	-0.2
Th	1342	1.1	F	1538	1.1
15	0454	-0.7			
F	1451	1.2			

MARCH 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0513	-0.3	16	0559	-0.3
Sa	1603	1.1	Su	1704	1.3
2	0614	-0.3	17	0710	-0.2
Su	1614	1.1	M	1524	1.3
				2048	1.1
3	0705	-0.3	16	0011	1.2
M	1611	1.1	Tu	0809	-0.1
	2056	1.0		1538	1.2
	2236	1.1		2047	0.9
4	0750	-0.3	19	0134	1.2
Tu	1613	1.1	W	0858	0.0
	2104	1.0		1548	1.1
				2113	0.7
5	0024	1.1	20	0246	1.2
W	0831	-0.3	Th	0942	0.2
	1618	1.0		1557	1.1
	2029	0.9		2141	0.6
6	0142	1.1	21	0352	1.3
Th	0911	-0.2	F	1020	0.4
	1625	1.0		1603	1.1
	2106	0.7		2210	0.3
7	0257	1.1	22	0455	1.3
F	0951	0.0	Sa	1056	0.7
	1633	1.0		1611	1.1
	2146	0.4		2239	0.2
8	0412	1.2	23	0555	1.3
Se	1032	0.2	Su	1132	0.8
	1639	0.9		1614	1.1
	2229	0.1		2309	0.1
9	0528	1.2	24	0654	1.3
Su	1117	0.5	M	1207	1.0
	1644	1.0		1620	1.1
	2315	-0.1		2342	0.0
10	0649	1.3	25	0755	1.3
M	1204	0.8	Tu	1244	1.1
	1644	1.0		1542	1.2
11	0005	-0.3	26	0020	0.0
Tu	0815	1.3	W	0902	1.3
	1257	1.0			
	1634	1.1			
12	0100	-0.4	27	0104	0.0
W	0950	1.4	Th	1029	1.3
13	0204	-0.5	28	0158	0.0
Th	1139	1.4	F	1454	1.3
14	0317	-0.4	29	0259	0.1
F	1328	1.4	Sa	1513	1.4
15	0439	-0.4	30	0410	0.1
Sa	1431	1.4	Su	1454	1.4
			31	0519	0.1
			M	1440	1.3

APRIL 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0821	0.1	15	0109	1.4
Tu	1440	1.3	W	0803	0.9
	1959	1.1		1444	1.3
	2329	1.2		2028	0.7
2	0715	0.2	17	0229	1.4
W	1444	1.2	Th	0856	0.7
	1945	1.0		1421	1.2
				2051	0.5
3	0108	1.3	18	0335	1.5
Th	0805	0.3	F	0944	0.5
	1449	1.2		1427	1.2
	2009	0.7		2114	0.5
4	0229	1.4	19	0432	1.5
F	0855	0.5	Sa	1026	1.1
	1454	1.2		1428	1.3
	2042	0.4		2137	0.7
5	0341	1.5	20	0522	1.6
Sa	0945	0.7	Su	1112	1.2
	1456	1.2		1428	1.3
	2121	0.1		2202	0.0
6	0451	1.6	21	0607	1.6
Su	1038	1.0	M	1155	1.2
	1502	1.2		1418	1.3
	2204	-0.2		2231	0.0
7	0558	1.7	22	0652	1.6
M	1134	1.2	Tu	2303	0.0
	1504	1.3			
	2250	-0.3			
8	0709	1.8	23	0739	1.6
Tu	1234	1.3	W	2339	0.0
	1459	1.4			
	2341	-0.4			
9	0823	1.8	24	0833	1.6
W			Th		
10	0038	-0.4	25	0021	0.0
Th	0946	1.7	F	0940	1.5
11	0144	-0.3	26	0109	0.1
F	1118	1.7	Sa	1101	1.5
12	0300	-0.1	27	0203	0.2
Sa	1240	1.6	Su	1209	1.5
13	0425	0.0	28	0303	0.3
Su	1328	1.5	M	1238	1.5
14	0550	0.2	29	0410	0.4
M	1350	1.4	Tu	1251	1.4
	1946	1.1			
	2329	1.2			
15	0702	0.3	30	0521	0.5
Tu	1404	1.3	W	1258	1.3
	2004	0.9		1901	0.9

MAY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0022	1.2	16	0321	1.4
Th	0652	0.7	F	0909	1.1
	1303	1.3		1244	1.2
	1911	0.8		2020	0.
2	0153	1.4	17	0418	1.6
F	0742	0.9	Se	1016	1.2
	1407	1.3		1240	1.4
	1939	0.3		2042	-0.
3	0306	1.6	18	0458	1.6
Se	0851	1.1	Su	2106	-0.2
	1509	1.3			
	2016	0.0			
4	0411	1.8	19	0534	1.7
Su	0958	1.3	M	2133	-0.2
	1511	1.4			
	2057	-0.3			
5	0512	1.9	20	0606	1.7
M	1104	1.4	Tu	2203	-0.2
	1513	1.5			
	2143	-0.5			
6	0612	2.0	21	0644	1.6
Tu	2233	-0.6	W	2236	-0.2
7	0714	2.0	22	0726	1.6
W	2327	-0.5	Th	2313	-0.2
8	0821	1.9	23	0815	1.5
Th			F	2352	-0.
9	0025	-0.4	24	0909	1.5
F	0932	1.6	Sa		
10	0129	-0.2	25	0033	0.0
Sa	1040	1.6	Su	0959	1.5
11	0241	0.0	26	0117	0.
Su	1131	1.5	M	1034	1.4
12	0401	0.3	27	0205	0.3
M	1252	1.4	Tu	1059	1.3
	1845	1.0			
	2222	1.1			
13	0526	0.5	28	0302	0.5
Tu	1221	1.3	W	1106	1.3
	1907	0.8		1803	0.8
				2318	1.0
14	0601	1.2	29	0415	0.7
W	0647	0.7	Th	1111	1.2
	1233	1.3		1805	0.4
	1952	0.5			
15	0209	1.3	30	0111	1.2
Th	0801	0.9	F	0551	1.0
	1241	1.2		1111	1.2
	1957	0.3		1127	1.3
				1910	-0.3
			31	0230	1.4
			Sa	0740	1.2

JUNE 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0332	1.7	16	0507	1.4
Su	1953	-0.6	M	2040	-0.7
2	0428	1.8	17	0535	1.5
M	2040	-0.7	Tu	2111	
3	0522	1.9	18	0604	1.4
Tu	2130	-0.8	W	2144	
4	0616	1.9	19	0637	1.4
W	2223	-0.8	Th	2216	
5	0712	1.8	20	0713	1.4
Th	2318	-0.7	F	2253	
6	0808	1.7	21	0750	1.4
F			Sa	2327	
7	0014	-0.5	22	0823	1.4
Sa	0900	1.5	Su		
8	0112	-0.2	23	0902	1.4
Su	0942	1.4	M	0846	
9	0213	0.1	24	0939	1.4
M	1012	1.3	Tu	0908	
	1713	0.8			
	2045	0.9			
10	0321	0.4	25	0119	1.4
Tu	1034	1.2	W	0916	
	1748	0.5		1616	
	2321	0.9		2152	
11	0449	0.7	26	0206	1.4
W	1048	1.2	Th	0918	
	1820	0.3		1640	
12	0135	1.1	27	0318	1.4
Th	0638	1.0	F	0315	
	1056	1.1		0911	
	1850	0.0		1717	
13	0304	1.3	28	0154	1.4
F	0825	1.0	Sa	0529	
	1053	1.1		0942	
	1918	-0.1		1800	
14	0359	1.4	29	0257	1.4
Sa	1944	-0.3	Su	1848	
15	0437	1.5	30	0349	1.4
Su	2012	-0.4	M	1939	

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1 ½ 0 2

YARDS

1000 0 1000 2000 3000

LATITUDE

1′ 45″ 30″ 15″ 0″ 50″

LONGITUDE

1′ 45″ 30″ 15″ 0″ 50″

BROWNSVILLE AND PORT ISABEL HARBORS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2009

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
BRAZOS SANTIAGO PASS:							
ENTRANCE CHANNEL	45.9	45.1	42.0	5-09	300	1.7	44
JETTY CHANNEL	42.5	44.2	41.9	5-09	300-400	1.7	42
LAGUNA MADRE CHANNEL	42.0	43.0	42.7	5-09	250	2.5	42
BROWNSVILLE SHIP CHANNEL:							
JUNCTION BASIN TO BOCA CHICA PASSING BASIN	39.3	35.4	34.5	3-09	250	3.5	42
BOCA CHICA PASSING BASIN TO GOOSE I. PASSING BASIN	36.5	36.8	37.4	3-09	250	4.7	42
GOOSE I. PASSING BASIN TO BROWNSVILLE TURNING BASIN	39.0	41.5	40.0	3-09	300	2.4	42
BROWNSVILLE TURNING BASIN	24.6	37.2	25.0	3-09	500-1200	1.7	42-36
PORT ISABEL CHANNEL:							
JUNCTION TO TURNING BASIN (INCLUDING WIDENER AT JUNCTION)	31.6	37.6	15.8	5-09	200	1.0	36
PORT ISABEL TURNING BASIN	26.5	29.2	22.8	3-09	1000	0.2	36
CUT OFF CHANNEL	30.3	32.1	28.2	7-08	200	0.9	36

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

CAUTION

Small craft operators are warned to beware of severe water turbulence caused by large vessels traversing narrow waterways.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

16′ 56′ 14′ 12′

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GALVESTON (Galveston Channel), TEXAS

Predicted times and heights of high and low water-Central Standard Time. For Daylight Saving time,
To predict local tide, apply the time difference listed in the facility tabulations to these tide pr

UARY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
	0554 1431 1913 2148	-0.2 0.8 0.7 0.8	16 W	0420 1317 1631 1912	-0.5 0.9 0.8 0.9
	0625 1526	-0.3 1.0	17 Th	0517 1434	-0.7 1.1
	0655 1502	-0.5 1.1	18 F	0614 1528	-0.9 1.2
	0727 1631	-0.6 1.1	19 Sa	0711 1615	-1.0 1.2
	0800 1659	-0.7 1.1	20 Su	0807 1659 2130 2358	-1.1 1.2 1.0 1.1
	0835 1728 2132 2336	-0.7 1.1 0.9 1.0	21 M	0900 1736 2138	-1.1 1.1 1.0
	0910 1759 2109	-0.8 1.0 0.9	22 Tu	0116 0951 1812 2209	1.1 -1.0 1.0 0.9
	0032 0945 1831 2129	1.0 -0.8 1.0 0.9	23 W	0224 1036 1840 2255	1.0 -0.8 0.9 0.7
	0116 1019 1900 2209	1.0 -0.8 1.0 0.9	24 Th	0330 1121 1902 2351	0.9 -0.6 0.8 0.6
	0159 1054 1925 2303	1.0 -0.7 0.9 0.8	25 F	0443 1201 1921	0.8 -0.3 0.8
	0250 1130 1944	0.9 -0.5 0.9	26 Sa	0054 0608 1238 1936	0.4 0.6 -0.1 0.7
	0007 0406 1207 1958	0.6 0.7 -0.3 0.8	27 Su	0155 0751 1312 1946	0.2 0.6 0.2 0.7
	0116 0612 1246 2007	0.4 0.6 0.0 0.8	28 M	0251 0955 1341 1948	0.0 0.6 0.5 0.7
	0222 0846 1330 2009	0.1 0.5 0.3 0.7	29 Tu	0343 1912	-0.2 0.7
	0322 1114 1427 2002	-0.2 0.7 0.6 0.8	30 W	0432 1513	-0.3 0.8
			31 Th	0520 1536	-0.5 0.9

FEBRUARY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 F	0607 1605	-0.5 1.0	16 Sa	0504 1537	-0.8 1.2
2 Sa	0653 1632	-0.6 1.0	17 Su	0710 1612 2100 2310	-0.8 1.2 1.0 1.1
3 Su	0736 1654	-0.7 1.0	18 M	0809 1639 2058	-0.8 1.1 1.0
4 M	0816 1712 2022 2332	-0.7 1.0 0.9 1.0	19 Tu	0043 0901 1659 2122	1.1 -0.7 1.0 0.8
5 Tu	0853 1728 2038	-0.7 0.9 0.8	20 W	0159 0947 1715 2157	1.1 -0.5 0.9 0.7
6 W	0056 0929 1742 2117	1.0 -0.7 0.9 0.6	21 Th	0307 1028 1729 2237	1.0 -0.3 0.9 0.5
7 Th	0201 1004 1756 2203	1.0 -0.6 0.9 0.6	22 F	0415 1105 1741 2317	1.0 -0.1 0.8 0.3
8 F	0310 1040 1808 2252	0.9 -0.4 0.8 0.4	23 Sa	0526 1140 1752 2357	0.9 0.2 0.8 0.1
9 Sa	0426 1117 1817 2343	0.8 -0.2 0.8 0.2	24 Su	0641 1212 1758	0.9 0.4 0.8
10 Su	0559 1156 1823	0.8 0.1 0.7	25 M	0038 0903 1244 1755	0.0 0.9 0.6 0.8
11 M	0037 0742 1239 1823	0.0 0.8 0.4 0.6	26 Tu	0121 0937 1313 1716	-0.1 0.9 0.8 0.9
12 Tu	0133 0937 1326 1811	-0.3 0.8 0.7 0.6	27 W	0209 1526	-0.2 1.0
13 W	0235 1142 1431 1717	-0.5 1.0 0.9 1.0	28 Th	0304 1513	-0.2 1.1
14 Th	0343 1342	-0.6 1.1	29 F	0408 1538	-0.2 1.1
15 F	0454 1451	-0.7 1.2			

MARCH 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Sa	0513 1605	-0.3 1.1	16 Su	0559 1504	-0.3 1.3
2 Su	0614 1614	-0.3 1.1	17 M	0710 1524 2028	-0.2 1.3 1.1
3 M	0706 1611 2056 2236	-0.3 1.1 1.0 1.1	18 Tu	0011 0809 1538 2047	1.2 -0.1 1.2 0.9
4 Tu	0750 1613 2004	-0.3 1.1 1.0	19 W	0134 0858 1548 2113	1.2 0.0 1.1 0.7
5 W	0024 0831 1618 2029	1.1 -0.3 1.0 0.9	20 Th	0246 0942 1557 2141	1.2 0.2 1.1 0.5
6 Th	0142 0911 1626 2106	1.1 -0.2 1.0 0.7	21 F	0352 1020 1605 2210	1.3 0.4 1.1 0.3
7 F	0257 0951 1633 2146	1.1 0.0 1.0 0.4	22 Sa	0455 1056 1611 2239	1.3 0.7 1.1 0.2
8 Sa	0412 1032 1639 2229	1.2 0.2 0.9 0.1	23 Su	0555 1132 1614 2309	1.3 0.8 1.1 0.1
9 Su	0528 1117 1644 2315	1.2 0.5 1.0 -0.1	24 M	0654 1207 1609 2342	1.3 1.0 1.1 0.0
10 M	0649 1204 1644	1.3 0.8 1.0	25 Tu	0755 1244 1542	1.3 1.1 1.2
11 Tu	0005 0815 1257 1634	-0.3 1.3 1.0 1.1	26 W	0020 0902	0.0 1.3
12 W	0100 0950	-0.4 1.4	27 Th	0104 1023	0.0 1.3
13 Th	0204 1139	-0.5 1.4	28 F	0156 1454	0.0 1.3
14 F	0317 1328	-0.4 1.4	29 Sa	0259 1513	0.1 1.4
15 Sa	0439 1431	-0.4 1.4	30 Su	0410 1454	0.1 1.4
			31 M	0519 1440	0.1 1.3

APRIL 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Tu	0621 1440 1959 2329	0.1 1.3 1.1 1.2	16 W	0109 0803 1414 2028	1.3 0.5 1.3 0.7
2 W	0715 1444 1945	0.2 1.2 1.0	17 Th	0229 0856 1421 2051	1.4 0.7 1.2 0.5
3 Th	0108 0805 1449 2009	1.3 0.3 1.2 0.7	18 F	0335 0944 1427 2114	1.5 0.9 1.2 0.3
4 F	0229 0855 1454 2042	1.4 0.5 1.2 0.4	19 Sa	0432 1029 1429 2137	1.5 1.1 1.3 0.1
5 Sa	0341 0945 1458 2121	1.5 0.7 1.2 0.1	20 Su	0522 1112 1428 2202	1.6 1.2 1.3 0.0
6 Su	0451 1038 1502 2204	1.6 1.0 1.2 -0.2	21 M	0607 1155 1418 2231	1.6 1.2 1.3 0.0
7 M	0559 1134 1504 2250	1.7 1.2 1.3 -0.3	22 Tu	0652 2303	1.6 0.0
8 Tu	0709 1234 1459 2341	1.8 1.3 1.4 -0.4	23 W	0739 2339	1.6 0.0
9 W	0823	1.8	24 Th	0833	1.6
10 Th	0039 0946	-0.4 1.7	25 F	0021 0940	0.0 1.5
11 F	0144 1118	-0.3 1.7	26 Sa	0109 1101	0.1 1.5
12 Sa	0300 1240	-0.1 1.6	27 Su	0203 1209	0.2 1.5
13 Su	0425 1326	0.0 1.5	28 M	0303 1238	0.3 1.5
14 M	0550 1350 1946 2329	0.2 1.4 1.1 1.2	29 Tu	0410 1251	0.4 1.4
15 Tu	0702 1404 2004	0.3 1.3 0.9	30 W	0521 1258 1901	0.5 1.3 0.9

MAY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Th	0022 0632 1303 1911	1.2 0.7 1.3 0.8	16 F	0321 0909 1244 2020	1.4 1. 1.2 0.
2 F	0153 0742 1307 1939	1.4 0.9 1.3 0.3	17 Sa	0416 1016 1240 2042	1.6 1.2 1.3 -0.
3 Sa	0306 0851 1309 2016	1.6 1.1 1.3 0.0	18 Su	0458 2106	1.6 -0.2
4 Su	0411 0958 1311 2057	1.8 1.3 1.4 -0.3	19 M	0534 2133	1.7 -0.2
5 M	0512 1104 1313 2143	1.9 1.4 1.5 -0.5	20 Tu	0608 2203	1.7 -0.2
6 Tu	0612 2233	2.0 -0.6	21 W	0644 2236	1.6 -0.2
7 W	0714 2327	2.0 -0.5	22 Th	0726 2313	1.6 -0.2
8 Th	0821	1.9	23 F	0815 2352	1.5 -0.
9 F	0025 0932	-0.4 1.6	24 Sa	0909	1.5
10 Sa	0129 1040	-0.2 1.6	25 Su	0033 0959	0.0 1.5
11 Su	0241 1131	0.0 1.5	26 M	0117 1034	0. 1.4
12 M	0401 1202 1845 2222	0.3 1.4 1.0 1.1	27 Tu	0205 1055	0.3 1.3
13 Tu	0526 1221 1907	0.5 1.3 0.8	28 W	0302 1106 1803 2318	0.5 1.3 0.8 1.0
14 W	0031 0647 1233 1932	1.2 0.7 1.3 0.5	29 Th	0415 1111 1805	0.7 1.2 0.4
15 Th	0209 0801 1241 1957	1.3 0.9 1.2 0.3	30 F	0111 0551 1111 1833	1.2 1.0 1.2 0.
			31 Sa	0230 0740 1107 1910	1.4 1.2 1.3 -0.3

JUNE 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Su	0332 1953	1.7 -0.8	16 M	0507 2040	1.5 -0.4
2 M	0428 2040	1.8 -0.7	17 Tu	0535 2111	1.5 -0.4
3 Tu	0522 2130	1.9 -0.8	18 W	0604 2144	1.5 -0.4
4 W	0616 2223	1.9 -0.8	19 Th	0637 2216	1.4 -0.4
5 Th	0712 2318	1.8 -0.7	20 F	0713 2253	1.4 -0.3
6 F	0808	1.7	21 Sa	0750 2327	1.4 -0.3
7 Sa	0014 0900	-0.5 1.5	22 Su	0823	1.3
8 Su	0112 0942	-0.2 1.4	23 M	0002 0846	-0.1 1.3
9 M	0213 1012 1713 2045	0.1 1.3 0.8 0.9	24 Tu	0039 0906	0.1 1.2
10 Tu	0321 1034 1748 2321	0.4 1.2 0.5 0.9	25 W	0119 0916 1616 2152	0.3 1.2 0.6 0.8
11 W	0449 1048 1820	0.7 1.2 0.3	26 Th	0206 0918 1640	0.6 1.1 0.2
12 Th	0135 0638 1056 1850	1.1 1.0 1.1 0.0	27 F	0016 0315 0911 1717	1.0 0.9 1.1 -0.1
13 F	0304 0825 1053 1918	1.3 1.0 1.1 -0.1	28 Sa	0154 0529 0942 1800	1.2 1.1 1.2 -0.4
14 Sa	0359 1944	1.4 -0.3	29 Su	0257 1948	1.5 -0.7
15 Su	0437 2012	1.5 -0.4	30 M	0349 1939	1.6 -0.8

JULY 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Tu	0438 2031	1.7 -0.9	16 W	0531 2056	1.4 -0.5
2 W	0526 2125	1.7 -0.9	17 Th	0553 0951 1138 2129	1.3 1.2 1.3 -0.4
3 Th	0612 1033 1312 2218	1.6 1.4 1.5 -0.8	18 F	0615 0953 1243 2201	1.3 1.2 1.3 -0.4
4 F	0655 1110 1426 2310	1.5 1.3 1.4 -0.6	19 Sa	0637 1033 1333 2233	1.3 1.1 1.2 -0.3
5 Sa	0733 1212 1542	1.4 1.1 1.2	20 Su	0657 1125 1431 2305	1.3 1.0 1.1 -0.1
6 Su	0000 0803 1333 1715	-0.4 1.3 1.0 1.1	21 M	0713 1220 1558 2338	1.2 0.9 1.0 0.1
7 M	0048 0828 1451 1913	0.0 1.2 0.7 0.9	22 Tu	0726 1312 1805	1.2 0.7 0.9
8 Tu	0136 0847 1552 2133	0.3 1.1 0.4 0.8	23 W	0012 0732 1401 2028	0.3 1.1 0.4 0.8
9 W	0228 0901 1641	0.6 1.1 0.2	24 Th	0048 0730 1451 2251	0.6 1.1 0.2 1.0
10 Th	0017 0407 0906 1722	1.0 0.9 1.1 0.0	25 F	0129 0716 1543	0.9 1.2 -0.1
11 F	0236 1759	1.2 -0.2	26 Sa	0635 1639	1.3 -0.4
12 Sa	0332 1835	1.3 -0.3	27 Su	0231 1736	1.4 -0.5
13 Su	0409 1910	1.4 -0.4	28 M	0318 1835	1.6 -0.7
14 M	0441 1946	1.4 -0.4	29 Tu	0401 1933	1.6 -0.7
15 Tu	0508 2021	1.4 -0.4	30 W	0440 2029	1.6 -0.7
			31 Th	0515 0916 1238 2122	1.5 1.4 1.5 -0.6

AUGUST 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 F	0344 0951 1359 2211	1.4 1.3 1.4 -0.5	16 Sa	0519 0929 1349 2142	1.4 1.2 1.3 0.0
2 Sa	0609 1041 1516 2257	1.4 1.1 1.3 -0.2	17 Su	0530 1008 1459 2214	1.4 1.1 1.3 0.1
3 Su	0630 1138 1637 2340	1.3 0.9 1.2 0.1	18 M	0540 1049 1618 2248	1.3 0.9 1.2 0.4
4 M	0648 1236 1808	1.2 0.7 1.1	19 Tu	0548 1132 1746 2323	1.3 0.7 1.2 0.6
5 Tu	0021 0703 1333 1952	0.4 1.2 0.5 1.0	20 W	0551 1217 1923	1.3 0.4 1.2
6 W	0059 0713 1427 2155	0.7 1.1 0.3 1.1	21 Th	0001 0548 1306 2112	0.9 1.3 0.2 1.3
7 Th	0137 0713 1519	1.0 1.2 0.1	22 F	0040 0534 1402 2316	1.2 1.4 0.0 1.5
8 F	0226 1610	1.2 0.0	23 Sa	0119 0503 1504	1.4 1.5 0.1
9 Sa	0252 1701	1.4 -0.1	24 Su	0413 1613	1.6 -0.2
10 Su	0329 1751	1.5 -0.1	25 M	0254 1723	1.7 -0.3
11 M	0405 1838	1.5 -0.2	26 Tu	0324 1831	1.7 -0.3
12 Tu	0436 1922	1.5 -0.2	27 W	0350 1933	1.7 -0.3
13 W	0454 2002	1.5 -0.2	28 Th	0411 0834 1204 2028	1.6 1.5 1.6 -0.2
14 Th	0302 0921 1121 2037	1.4 1.3 1.4 -0.2	29 F	0428 0900 1331 2117	1.6 1.3 1.6 0.0
15 F	0309 0900 1241 2110	1.4 1.3 1.4 -0.1	30 Sa	0443 0939 1449 2202	1.5 1.1 1.5 0.2
			31 Su	0458 1021 1604 2243	1.4 0.9 1.5 0.5

SEPTEMBER 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.
1 M	0510 1103 1720 2322	1.4 0.7 1.4 0.8	16 Tu	0409 1014 1713 2242
2 Tu	0521 1145 1840 2359	1.4 0.5 1.4 1.0	17 W	0412 1054 1830 2324
3 W	0527 1226 2005	1.4 0.4 1.4	18 Th	0409 1140 1952
4 Th	0037 0522 1309 2143	1.3 1.4 0.3 1.5	19 F	0008 0359 1231 2125
5 F	0113 0416 1357	1.3 1.4 0.2	20 Sa	0053 0342 1330 2318
6 Sa	0210 1453	1.6 0.2	21 Su	0138 0312 1439
7 Su	0241 1556	1.6 0.2	22 M	0140 1557
8 M	0318 1701	1.7 0.2	23 Tu	0219 1717
9 Tu	0348 1801	1.7 0.2	24 W	0239 1829
10 W	0356 1851	1.7 0.2	25 Th	0253 0909 1130 1931
11 Th	0350 1933	1.6 0.2	26 F	0305 0825
12 F	0349 0837 1214 2011	1.6 1.4 1.5 0.3	27 Sa	0316 0853 1426 2112
13 Sa	0353 0841 1333 2047	1.6 1.3 1.5 0.4	28 Su	0326 0924 1539 2154
14 Su	0359 0905 1447 2123	1.5 1.1 1.6 0.6	29 M	0335 0955 1646 2235
15 M	0405 0937 1559 2201	1.5 0.9 1.6 0.8	30 Tu	0342 1027 1749 2314

Time meridian 90° W. 0000 is midnight. 1200 is noon.
Heights are referred to mean lower low water which is the chart datum of soundings.
On days when the tide is diurnal, high water has an approximate stand of about 7 hou
Predictions are for beginning of stand.

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

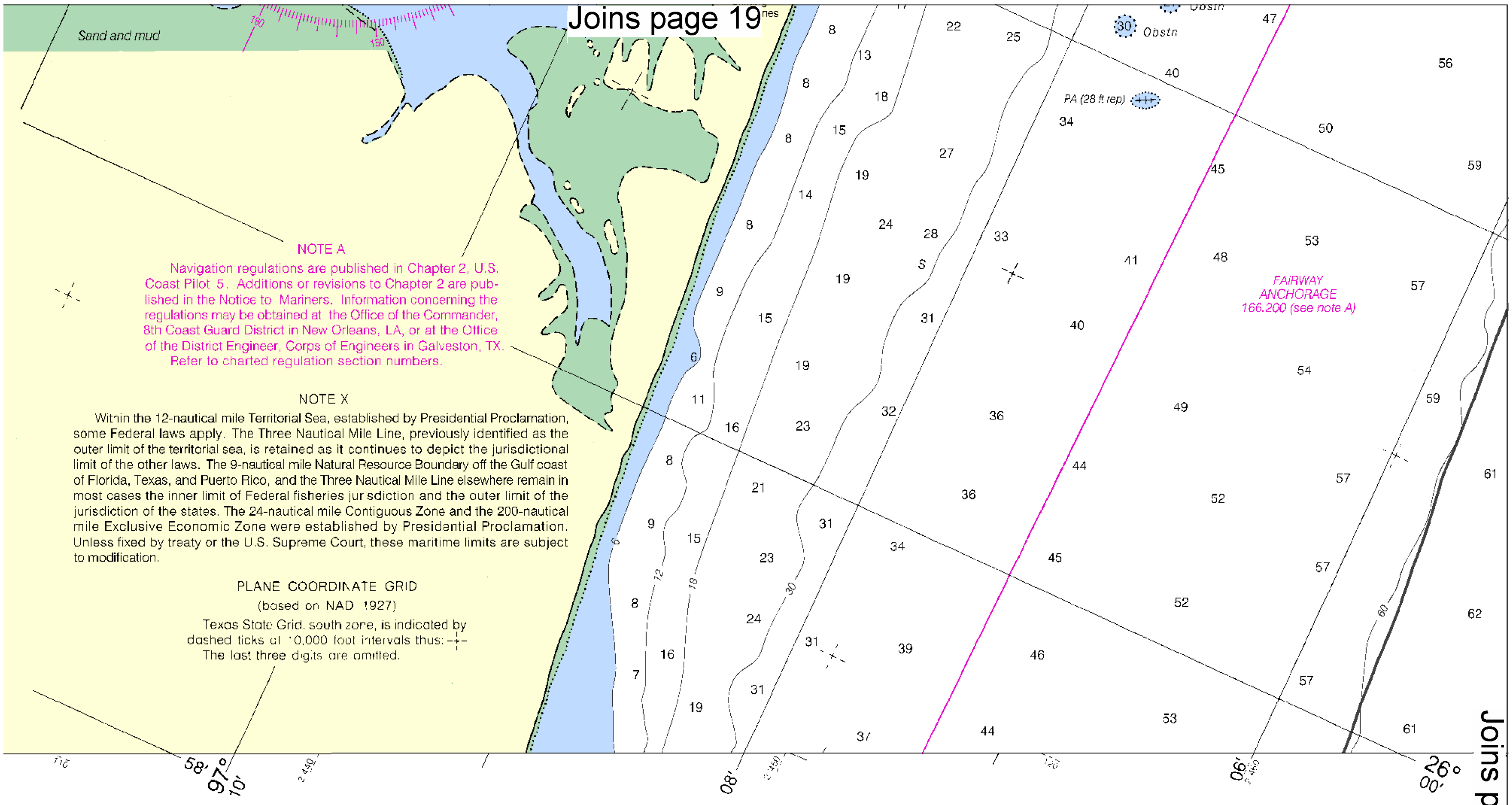
Nautical Miles

1 ½ 0 1 2 3

Yards

1000 0 1000 2000 3000 4000 5000

North



Joins page 19

Joins page 26

lime, add 1 hour.
· predictions.

…08
.5 0.6 .6 .1
.5 0.4 .7 .3
.6 0.2 .8
.5 .7 0.0 .8
.7 .8 0.0 .9
.8 .9 0.0
.9 0.0
.9 0.1
.8 0.2
.8 .5 .6 0.3
.7 .3
.6 .1 .7 0.7
.6 0.9 .7 0.9
.8 0.7 .7 .2
.6 0.5 .8 .4

OCTOBER 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 W	0345 1059 1852 2353	1.6 0.4 1.8 1.5	16 Th	0232 1027 1647 2335	1.7 0.0 2.1 1.7
2 Th	0337 1133 1956	1.6 0.3 1.8	17 F	0232 1115 2000	1.8 -0.1 2.1
3 F	0030 0258 1211 2109	1.6 1.7 0.3 1.8	18 Sa	0019 0233 1210 2124	1.8 1.9 -0.1 2.0
4 Sa	1255	0.3	19 Su	1312 2304	-0.1 2.0
5 Su	0208 1348	1.8 0.4	20 M	1424	0.1
6 M	0235 1450	1.8 0.4	21 Tu	0030 1544	1.9 0.2
7 Tu	0251 1559	1.8 0.5	22 W	0104 1707	1.8 0.4
8 W	0236 1706	1.8 0.5	23 Th	0121 0729 1043 1822	1.7 1.4 1.5 0.6
9 Th	0220 1803	1.7 0.5	24 F	0134 0743 1238 1927	1.6 1.2 1.5 0.8
10 F	0218 0831 1121 1853	1.7 1.4 1.5 0.6	25 Sa	0145 0808 1407 2023	1.6 0.9 1.6 1.0
11 Sa	0220 0800 1300 1940	1.6 1.3 1.5 0.8	26 Su	0154 0834 1520 2115	1.5 0.6 1.7 1.2
12 Su	0224 0809 1418 2025	1.6 1.0 1.6 0.9	27 M	0201 0900 1621 2203	1.5 0.4 1.8 1.3
13 M	0228 0833 1528 2112	1.6 0.7 1.8 1.1	28 Tu	0206 0926 1714 2249	1.5 0.3 1.8 1.5
14 Tu	0230 0906 1634 2200	1.6 0.4 1.9 1.4	29 W	0206 0953 1802 2329	1.6 0.2 1.8 1.5
15 W	0232 0914 1740 2248	1.6 0.2 2.0 1.6	30 Th	0157 1022 1848	1.6 0.1 1.6
			31 F	1055 1938	0.1 1.8

NOVEMBER 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Sa	1132 2037 2351	0.1 1.7 1.6	16 Su	0214 1 59 2 12	1.8 -0.4 1.8
2 Su	0147 1213	1.7 0.2	17 M	0037 0241 1301 2222	1.6 1.7 -0.3 1.7
3 M	0207 1300	1.7 0.2	18 Tu	1409 2309	0.0 1.6
4 Tu	0212 1352	1.7 0.3	19 W	1524 2337	0.2 1.4
5 W	0028 1449	1.6 0.4	20 Th	0620 0929 1646 2355	1.1 1.2 0.5 1.4
6 Th	0030 1551	1.6 0.5	21 F	0642 1 54 1810	0.8 1.2 0.7
7 F	0038 1657	1.6 0.7	22 Sa	0009 0711 1343 1925	1.3 0.5 1.3 0.9
8 Sa	0041 0718 1211 1904	1.5 1.0 1.3 0.8	23 Su	0020 0740 1503 2039	1.3 0.2 1.4 1.1
9 Su	0045 0711 1341 1911	1.4 0.7 1.4 1.0	24 M	0027 0807 1602 2 46	1.3 0.0 1.5 1.2
10 M	0047 0730 1452 2015	1.4 0.4 1.6 1.2	25 Tu	0029 0833 1649	1.3 -0.1 1.6
11 Tu	0047 0801 1554 2115	1.4 0.1 1.8 1.4	26 W	0859 1727	-0.2 1.6
12 W	0049 0839 1652 2209	1.5 -0.2 1.9 1.5	27 Th	0927 1803	-0.3 1.6
13 Th	0054 0922 1750 2251	1.6 -0.4 2.0 1.6	28 F	0957 1840	-0.3 1.5
14 F	0110 1010 1852 2323	1.7 -0.5 2.0 1.6	29 Sa	1031 1922 2247	-0.3 1.5 1.3
15 Sa	0139 1102 1959 2352	1.7 -0.5 1.9 1.7	30 Su	0 22 1 07 2012 2301	1.4 -0.2 1.4 1.3

DECEMBER 2008

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 M	0146 1144 2106 2329	1.4 -0.2 1.4 1.2	16 Tu	0020 0354 1249 2114	1.1 1.2 -0.5 1.2
2 Tu	0156 1223 2152	1.3 -0. 1.3	17 W	0225 0529 1348 2144	0.9 1.0 -0.2 1.1
3 W	1303 2223	0.0 1.3	18 Th	0410 0758 1453 2207	0.7 0.8 0.2 1.0
4 Th	1346 2241	0.2 1.2	19 F	0507 1034	0.4 0.8
5 F	1436 2251	0.4 1.	20 Sa	0551 1257 1811 2237	0.1 0.9 0.7 0.9
6 Sa	0615 1055 1542 2255	0.6 0.8 0.6 1.	21 Su	0629 1437 1959 2242	-0.2 1.1 0.8 0.9
7 Su	0559 1254 1712 2254	0.3 1.0 0.9 1.	22 M	0703 1539	-0.4 1.2
8 M	0620 1413 1859 2249	0.0 1.2 1.0 1.	23 Tu	0735 1624	-0.5 1.2
9 Tu	0653 1514 2034 2244	-0.3 1.4 1. 1.2	24 W	0807 1700	-0.6 1.3
10 W	0734 1608	-0.6 1.6	25 Th	0838 1730	-0.6 1.2
11 Th	0820 1700	-0.8 1.6	26 F	0910 1759	-0.7 1.2
12 F	0909 1754 2213	-1.0 1.6 1.3	27 Sa	0942 1830 2145	-0.6 1.1 1.0
13 Sa	0049 1002 1849 2235	1.4 -1.0 1.5 1.4	28 Su	0101 1015 1901 2204	1.1 -0.6 1.1 1.0
14 Su	0150 1056 1945 2312	1.5 -0.9 1.4 1.3	29 M	0135 1048 1933 2247	1.1 -0.6 1.0 0.9
15 M	0249 1152 2035	1.4 -0.7 1.3	30 Tu	0159 1120 2002 2353	1.0 -0.5 1.0 0.8
			31 W	0220 1152	0.9 -0.4

ings.
hours.

JANUARY 2009

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Th	0106 0319 1223 2034	0.6 0.7 -0.2 0.9	16 F	0244 0857 1416 2024	0.1 0.6 0.3 0.7
2 F	0228 0544 1238 2045	0.5 0.6 0.1 0.8	17 Sa	0349 1117 1552 2035	-0.2 0.7 0.6 0.7
3 Sa	0319 0916 1339 2046	0.3 0.5 0.3 0.8	18 Su	0445 1346	-0.4 0.8
4 Su	0402 1144 1436 2034	0.0 0.6 0.5 0.8	19 M	0536 1505	-0.5 1.0
5 M	0446 1330 1627 1955	-0.9 0.9 0.8 0.9	20 Tu	0622 1554	-0.6 1.0
6 Tu	0533 1435	-0.6 1.1	21 W	0706 1635	-0.7 1.0
7 W	0624 1526	-0.8 1.2	22 Th	0746 1708	-0.7 1.0
8 Th	0717 1613	-1.0 1.3	23 F	0824 1726 2119 2355	-0.7 0.9 0.8 0.9
9 F	0811 1658 2102	-1.1 1.3 1.1	24 Sa	0858 1740 2042	-0.7 0.9 0.8
10 Sa	0006 0905 1740 2127	1.2 -1.2 1.2 1.0	25 Su	0052 0929 1752 2109	0.9 -0.7 0.9 0.8
11 Su	0124 0958 1618 2209	1.2 -1.1 1.1 0.9	26 M	0139 0959 1807 2153	0.9 -0.6 0.8 0.7
12 M	0237 1050 1851 2306	1.1 -0.9 1.0 0.7	27 Tu	0227 1028 1823 2241	0.8 -0.5 0.8 0.6
13 Tu	0352 1140 1920	1.0 -0.7 0.9	28 W	0322 1057 1838 2330	0.8 -0.4 0.8 0.5
14 W	0015 0516 1230 1945	0.5 0.8 -0.4 0.8	29 Th	0432 1127 1850	0.7 -0.2 0.7
15 Th	0130 0657 1320 2006	0.3 0.7 0.0 0.8	30 F	0019 0602 1159 1857	0.3 0.6 0.0 0.7
			31 Sa	0107 0751 1234 1853	0.1 0.6 0.3 0.7

FEBRUARY 2009

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Su	0158 0953 1313 1835	-0.1 0.6 0.5 0.8	16 M	0332 1350	-0.4 1.0
2 M	0254 1801	-0.4 0.8	17 Tu	0435 1505	-0.4 1.0
3 Tu	0356 1714	-0.6 1.0	18 W	0537 1555	-0.4 1.1
4 W	0501 1452	-0.7 1.1	19 Th	0634 1633	-0.4 1.0
5 Th	0606 1533	-0.9 1.1	20 F	0723 1648	-0.4 1.0
6 F	0709 1608 2003 2308	-1.0 1.1 1.0 1.1	21 Sa	0805 1642 2034	-0.4 1.0 0.9
7 Sa	0808 1638 2026	-1.0 1.1 0.9	22 Su	0019 0840 1641 2038	1.0 -0.4 0.9 0.8
8 Su	0043 0903 1704 2109	1.1 -0.9 1.0 0.8	23 M	0122 0911 1647 2109	1.0 -0.3 0.9 0.7
9 M	0203 0954 1727 2158	1.1 -0.8 0.9 0.6	24 Tu	0222 0940 1656 2144	1.0 -0.2 0.9 0.6
10 Tu	0320 1042 1747 2252	1.0 -0.5 0.9 0.4	25 W	0323 1011 1706 2220	0.9 -0.1 0.9 0.4
11 W	0438 1129 1807 2346	1.0 -0.2 0.9 0.2	26 Th	0429 1043 1714 2258	0.9 0.1 0.9 0.2
12 Th	0600 1215 1824	0.9 0.1 0.9	27 F	0539 1117 1717 2338	0.9 0.3 0.9 0.0
13 F	0041 0729 1303 1837	0.0 0.8 0.4 0.8	28 Sa	0657 1155 1713	1.0 0.6 0.9
14 Sa	0138 0911 1400 1842	-0.2 0.9 0.6 0.9			
15 Su	0232 1113	-0.3 0.9			

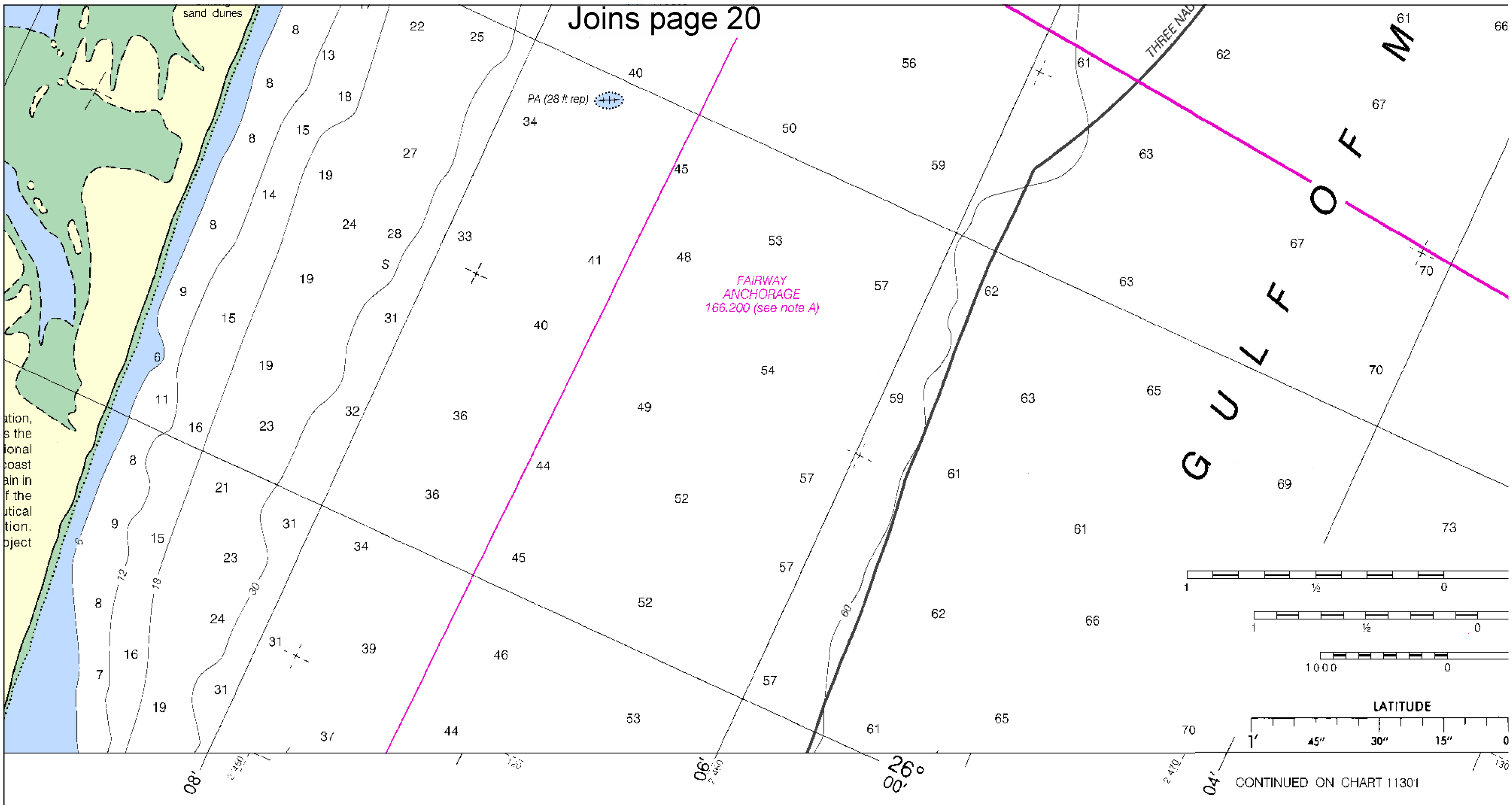
MARCH 2009

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Su	0022 0823 1234 1658	-0.2 1.0 0.8 1.0	16 M	0124 1030	-0.2 1.3
2 M	0113 1001 1315 1640	-0.3 1.1 1.0 1.1	17 Tu	0219 1304	-0.1 1.3
3 Tu	0213 1155 1355 1627	-0.4 1.2 1.1 1.2	18 W	0325 1455	-0.1 1.3
4 W	0323 1400	-0.5 1.2	19 Th	0439 1532	0.0 1.3
5 Th	0440 1444	-0.5 1.3	20 F	0549 1533	0.0 1.2
6 F	0556 1507	-0.5 1.3	21 Sa	0646 1518 2039 2323	0.0 1.2 1.0 1.1
7 Sa	0705 1526 1950	-0.5 1.2 1.0	22 Su	0733 1514 2018	0.1 1.1 1.0
8 Su	0002 0805 1544 2024	1.2 -0.4 1.1 0.9	23 M	0048 0812 1518 2027	1.1 0.2 1.1 0.6
9 M	0131 0900 1600 2105	1.2 -0.2 1.1 0.6	24 Tu	0158 0848 1524 2049	1.2 0.3 1.1 0.6
10 Tu	0250 0949 1616 2147	1.2 0.0 1.0 0.4	25 W	0303 0924 1531 2117	1.2 0.4 1.1 0.4
11 W	0404 1037 1631 2230	1.3 0.2 1.0 0.2	26 Th	0406 1002 1535 2149	1.3 0.6 1.1 0.2
12 Th	0516 1123 1645 2311	1.3 0.5 1.0 0.0	27 F	0508 1043 1537 2225	1.4 0.8 1.1 0.0
13 F	0627 1211 1655 2353	1.3 0.7 1.0 -0.1	28 Sa	0611 1125 1534 2306	1.5 1.0 1.2 -0.2
14 Sa	0740 1304 1656	1.3 0.9 1.0	29 Su	0718 1209 1525 2352	1.5 1.2 1.3 -0.3
15 Su	0036 0858	-0.2 1.3	30 M	0831 1252 1518	1.5 1.3 1.4
			31 Tu	0046 0955	-0.3 1.5

APRIL 2009

Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 W	0149 1132	-0.3 1.5	16 Th	0219 1301	0.2 1.4
2 Th	0302 1255	-0.2 1.5	17 F	0325 1319	0.3 1.4
3 F	0424 1334	-0.1 1.4	18 Sa	0436 1324	0.4 1.4
4 Sa	0546 1356 1926 2318	0.0 1.4 1.1 1.3	19 Su	0543 1331 1955 2355	0.5 1.3 1.0 1.2
5 Su	0659 1413 1947	0.2 1.3 0.9	20 M	0642 1338 1943	0.6 1.3 0.8
6 M	0102 0802 1428 2019	1.3 0.3 1.3 0.7	21 Tu	0122 0736 1344 1953	1.2 0.7 1.2 0.6
7 Tu	0225 0859 1442 2054	1.4 0.5 1.2 0.4	22 W	0233 0827 1348 2015	1.4 0.9 1.2 0.4
8 W	0337 0952 1455 2125	1.5 0.8 1.2 0.2	23 Th	0335 0919 1350 2044	1.5 1.0 1.3 0.1
9 Th	0442 1043 1506 2202	1.6 1.0 1.2 0.0	24 F	0432 1010 1349 2119	1.7 1.2 1.3 -0.1
10 F	0541 1135 1513 2236	1.6 1.1 1.3 -0.1	25 Sa	0527 1100 1348 2159	1.8 1.3 1.4 -0.3
11 Sa	0638 1232 1509 2312	1.6 1.2 1.3 -0.1	26 Su	0623 2245	1.8 -0.4
12 Su	0734 2350	1.6 -0.1	27 M	0724 2335	1.8 -0.4
13 M	0833	1.6	28 Tu	0830	1.8
14 Tu	0032 0942	0.0 1.5	29 W	0031 0942	-0.3 1.7
15 W	0121 1111	0.1 1.5	30 Th	0135 1051	-0.2 1.6

Joins page 20



Joins page 25

JANUARY 2009					
Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Th	0106 0319 1223 2034	0.6 0.7 -0.2 0.9	16 F	0244 0857 1416 2024	0.1 0.6 0.3 0.7
2 F	0228 0544 1258 2045	0.5 0.6 0.1 0.8	17 Sa	0349 1117 1552 2035	-0.2 0.7 0.6 0.7
3 Sa	0319 0916 1339 2046	0.3 0.5 0.3 0.8	18 Su	0445 1346	-0.4 0.8
4 Su	0402 1144 1436 2034	0.0 0.6 0.5 0.8	19 M	0536 1505	-0.5 1.0
5 M	0446 1330 1627 1955	-0.3 0.9 0.8 0.9	20 Tu	0632 1554	-0.6 1.0
6 Tu	0533 1435	-0.6 1.1	21 W	0706 1635	-0.7 1.0
7 W	0624 1526	-0.8 1.2	22 Th	0746 1708	-0.7 1.0
8 Th	0717 1613	-1.0 1.3	23 F	0824 1726 2119 2355	-0.7 0.9 0.8 0.9
9 F	0811 1658 2102	-1.1 1.3 1.1	24 Sa	0858 1740 2042	-0.7 0.9 0.8
10 Sa	0006 0905 1740 2127	1.2 -1.2 1.2 1.0	25 Su	0052 0929 1752 2109	0.9 -0.7 0.9 0.8
11 Su	0124 0958 1818 2209	1.2 -1.1 1.1 0.9	26 M	0139 0959 1907 2153	0.9 -0.6 0.8 0.7
12 M	0237 1050 1851 2306	1.1 -0.9 1.0 0.7	27 Tu	0227 1028 1823 2241	0.8 -0.5 0.8 0.6
13 Tu	0352 1140 1920	1.0 -0.7 0.9	28 W	0322 1057 1938 2330	0.8 -0.4 0.8 0.5
14 W	0015 0516 1230 1945	0.5 0.8 -0.4 0.8	29 Th	0432 1127 1850	0.7 -0.2 0.7
15 Th	0130 0857 1320 2006	0.3 0.7 0.0 0.8	30 F	0019 0602 1159 1857	0.3 0.6 0.0 0.7
			31 Sa	0107 0751 1234 1853	0.1 0.6 0.3 0.7

FEBRUARY 2009					
Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Su	0158 0953 1313 1835	-0.1 0.6 0.5 0.8	16 M	0332 1350	-0.4 1.0
2 M	0254 1801	-0.4 0.8	17 Tu	0435 1505	-0.4 1.0
3 Tu	0356 1714	-0.6 1.0	18 W	0537 1555	-0.4 1.1
4 W	0501 1452	-0.7 1.1	19 Th	0634 1633	-0.4 1.0
5 Th	0606 1533	-0.9 1.1	20 F	0723 1648	-0.4 1.0
6 F	0709 1606 2003 2306	-1.0 1.1 1.0 1.1	21 Sa	0805 1642 2034	-0.4 1.0 0.9
7 Sa	0808 1638 2026	-1.0 1.1 0.9	22 Su	0019 0840 1641 2038	1.0 -0.4 0.9 0.8
8 Su	0043 0903 1704 2109	1.1 -0.9 1.0 0.9	23 M	0122 0911 1647 2109	1.0 -0.3 0.9 0.7
9 M	0203 0954 1727 2158	1.1 -0.8 0.9 0.6	24 Tu	0222 0940 1656 2144	1.0 -0.2 0.9 0.6
10 Tu	0320 1042 1747 2252	1.0 -0.5 0.9 0.4	25 W	0323 1011 1706 2220	0.9 -0.1 0.9 0.4
11 W	0438 1129 1807 2346	1.0 -0.2 0.9 0.2	26 Th	0429 1043 1714 2258	0.9 0.1 0.9 0.2
12 Th	0600 1215 1824	0.9 0.1 0.9	27 F	0539 1117 1717 2338	0.9 0.3 0.9 0.0
13 F	0041 0729 1303 1837	0.0 0.8 0.4 0.9	28 Sa	0657 1155 1713	1.0 0.6 0.9
14 Sa	0138 0911 1400 1842	-0.2 0.9 0.6 0.9			
15 Su	0232 1113	-0.3 0.9			

MARCH 2009					
Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 Su	0022 0823 1234 1658	-0.2 1.0 0.8 1.0	16 M	0124 1030	-0.2 1.3
2 M	0113 1001 1315 1640	-0.3 1.1 1.0 1.1	17 Tu	0219 1304	-0.1 1.3
3 Tu	0213 1155 1355 1627	-0.4 1.2 1.1 1.2	18 W	0325 1455	-0.1 1.3
4 W	0323 1400	-0.5 1.2	19 Th	0439 1532	0.0 1.3
5 Th	0440 1444	-0.5 1.3	20 F	0549 1533	0.0 1.2
6 F	0556 1507	-0.5 1.3	21 Sa	0646 1518 2039 2323	0.0 1.2 1.0 1.1
7 Sa	0705 1526 1950	-0.5 1.2 1.0	22 Su	0733 1514 2018	0.1 1.1 1.0
8 Su	0002 0805 1544 2024	1.2 -0.4 1.1 0.9	23 M	0048 0812 1518 2027	1.1 0.2 1.1 0.8
9 M	0131 0900 1600 2105	1.2 -0.2 1.1 0.8	24 Tu	0158 0848 1524 2049	1.2 0.3 1.1 0.6
10 Tu	0250 0949 1616 2147	1.2 0.0 1.0 0.4	25 W	0303 0924 1531 2117	1.2 0.4 1.1 0.4
11 W	0404 1037 1631 2230	1.3 0.2 1.0 0.2	26 Th	0406 1002 1535 2149	1.3 0.6 1.1 0.2
12 Th	0516 1123 1645 2311	1.3 0.5 1.0 0.0	27 F	0508 1043 1537 2225	1.4 0.8 1.1 0.0
13 F	0627 1211 1655 2353	1.3 0.7 1.0 -0.1	28 Sa	0611 1125 1534 2306	1.5 1.0 1.2 -0.2
14 Sa	0740 1304 1656	1.3 0.9 1.0	29 Su	0718 1209 1525 2352	1.5 1.2 1.3 -0.3
15 Su	0036 0858	-0.2 1.3	30 M	0831 1252 1518	1.5 1.3 1.4
			31 Tu	0046 0955	-0.3 1.5

APRIL 2009					
Day	Time h.m.	Ht. ft.	Day	Time h.m.	Ht. ft.
1 W	0149 1132	-0.3 1.5	16 Th	0219 1301	0.2 1.4
2 Th	0302 1255	-0.2 1.5	17 F	0325 1319	0.3 1.4
3 F	0424 1334	-0.1 1.4	18 Sa	0436 1324	0.4 1.4
4 Sa	0546 1356 1926 2318	0.0 1.4 1.1 1.3	19 Su	0543 1331 1955 2355	0.5 1.3 1.0 1.2
5 Su	0659 1413 1947	0.2 1.3 0.9	20 M	0642 1338 1943	0.6 1.3 0.8
6 M	0102 0802 1428 2019	1.3 0.3 1.3 0.7	21 Tu	0122 0736 1344 1953	1.2 0.7 1.2 0.6
7 Tu	0225 0859 1442 2054	1.4 0.5 1.2 0.4	22 W	0233 0827 1348 2015	1.4 0.9 1.2 0.4
8 W	0337 0952 1455 2125	1.5 0.8 1.2 0.2	23 Th	0335 0919 1350 2044	1.5 1.0 1.3 0.1
9 Th	0442 1043 1506 2202	1.6 1.0 1.2 0.0	24 F	0432 1010 1349 2119	1.7 1.2 1.3 -0.1
10 F	0541 1135 1513 2236	1.6 1.1 1.3 -0.1	25 Sa	0527 1100 1348 2159	1.8 1.3 1.4 -0.3
11 Sa	0638 1232 1509 2312	1.6 1.2 1.3 -0.1	26 Su	0623 2245	1.8 -0.4
12 Su	0734 2350	1.6 -0.1	27 M	0724 2335	1.8 -0.4
13 M	0833	1.6	28 Tu	0830	1.8
14 Tu	0032 0942	0.0 1.5	29 W	0031 0942	-0.3 1.7
15 W	0121 1111	0.1 1.5	30 Th	0135 1051	-0.2 1.6

North

Printed at reduced scale. ~~SCALE 1:40,000~~ See Note on page 5.

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

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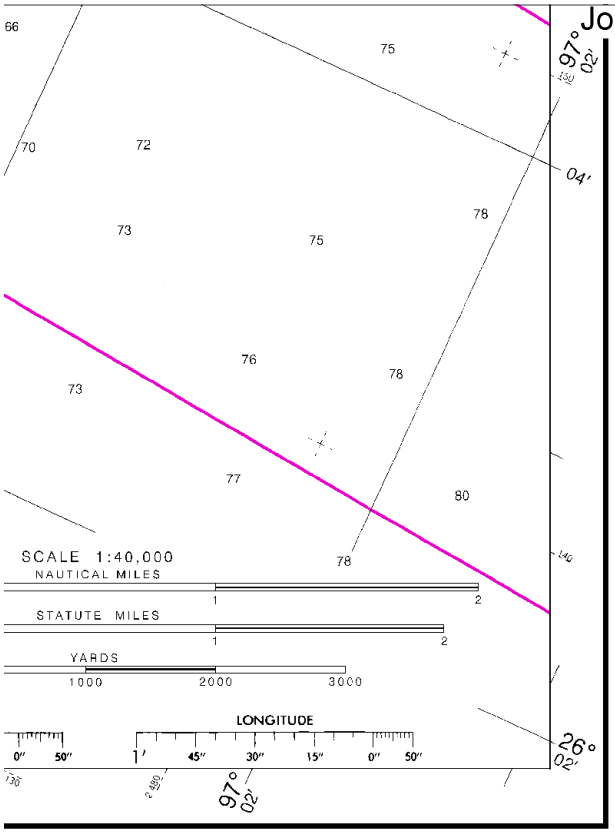

11302

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.
Coast Guard Station South Padre Island – 956-761-2668
Coast Guard Group Corpus Christi – 361-939-6393
Texas Park and Wildlife – 361-289-5566
Ft. Brown Border Patrol – 956-547-3100/3180
Coast Guard Atlantic Area Cmd – 757-398-6390

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA, The Nation's Chartmaker

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Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.